

Modern LITHOGRAPHY

JUNE - 1950 - VOLUME 18 - NUMBER 6



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Press (See Page 5)

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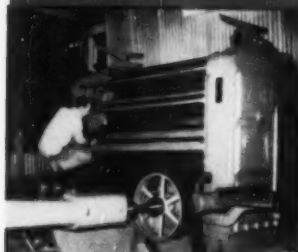


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PHOTOGRAPHIC DIVISION

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Modern LITHOGRAPHY



THE COVER

This offset press, handling metal sheets 50 x 72", weighing up to 50 pounds per sheet, is now operating in the Rheem Manufacturing plant at New Orleans. Shown on the press is Louis T. Rigby, of Rheem. (Story page 28.)



ROBERT P. LONG
Editor

THOMAS MORGAN
Business Manager

Address all correspondence to
254 W. 31st St., New York 1, N. Y.

June, 1950

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A black and white photograph of a man in profile, holding a negative up to a light source. The negative has text on it.

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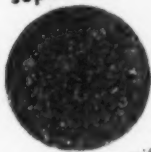
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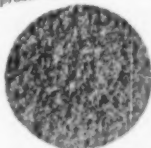
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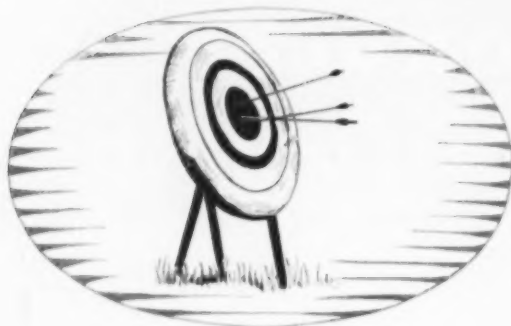
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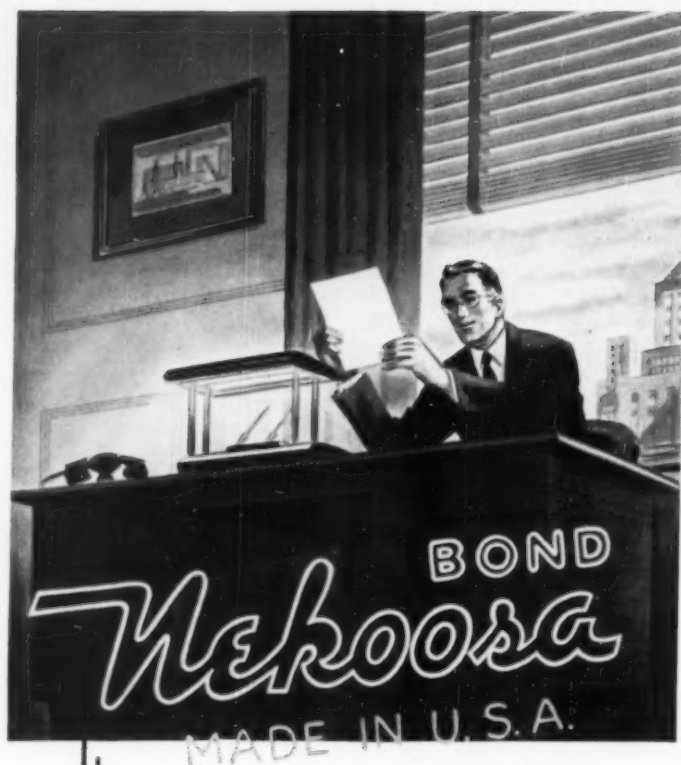


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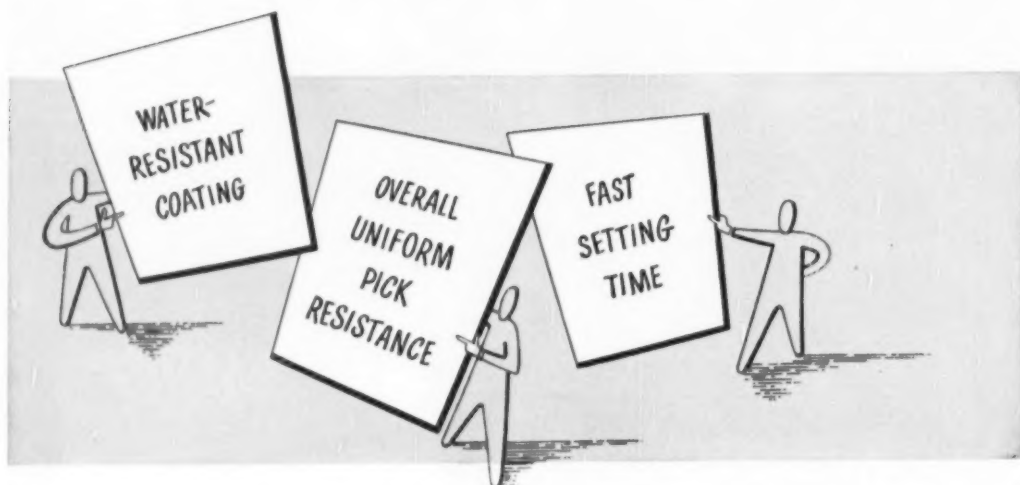
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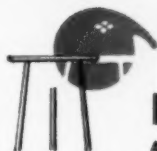
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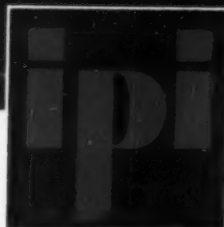


Between Rounds

by David E. Scherman

Good lithography is a constant fight for the best results on every job. And lithographers need the finest of inks, paper and craftsmanship for consistent victories. That's why leading offset houses choose IPI "Press-tested" Offset Inks for quality work. They like IPI's blacker blacks, stronger colors and whites that don't burn out in tints.

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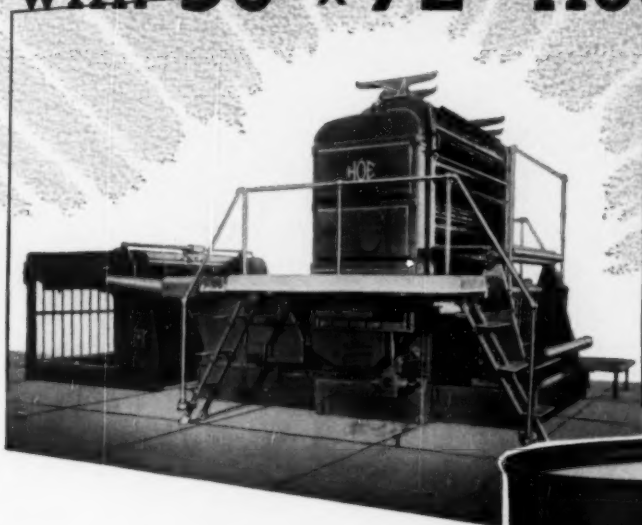
The resiliency built into St. Regis enamel offset papers helps get the job rolling sooner and also assures good folding strength. They lie flat and hold register — this means quality production with a minimum of waste.

St. Regis enamel offset papers have a high brightness to insure the maximum contrast between ink and paper. True color and tone values are reproduced with a minimum of ink.

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Rheem lithographs 18-gauge steel drums with 50" x 72" Hoe Press



An outstanding advance in metal decorating is the production, by the Rheem Manufacturing Company, of 55-gallon, 18-gauge steel drums attractively lithographed in any number of colors.

This has been made possible by the recent installation in Rheem's New Orleans plant of a 50" x 72" Hoe Metal Decorating Press. The press will handle steel sheets from 24" x 42" to 50" x 72", ranging from 24 to 16 gauge.

So satisfactory is the performance of this press that Rheem has already ordered additional presses for several of their other plants.

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

EDITORIALS

NEWSPAPERS produced by offset lithography certainly are not new. In one form or another such newspapers have been flourishing for a good many years. But here's a new angle. In California last month, the California Newspaper Publishers Association was taking court action in opposition to the establishment of several offset newspapers in that state. Basis of the protest was the method of printing used by the newspapers. The Publishers Association held, for instance, that the *Sonora Daily* "does not conform to the standards of a newspaper of general circulation as established in California code law." The chief failure of conformity is that the offset paper is not printed from metal type. (It uses electric justifying typewriters.)

One such case, brought by the *News-Messenger*, Lincoln, Calif., against the *Clarion*, in the same town, was decided by the Placer County Superior Court in favor of the offset *Clarion*. This decision has been appealed to a higher court by the long-established *News-Messenger*. Another action was being brought against the *East Contra Costa Observer*.

Under California law, only papers of "general circulation" may carry legal advertising and obtain second class mailing rights, two things which a newspaper needs.

We can't quite believe that the California Publishers are so far behind times, or so ill-informed, that they could bring such court actions with a straight face. Have they never heard of all the daily and weekly newspapers using the offset process, many using justifying typewriters? Have they never heard of the U. S. Census, released last year, which showed offset to be the fastest growing branch of the graphic arts, with a volume of \$624,000,000 per year? Have they never heard how the Chicago newspapers got out their editions for months and months without the use of metal type? Have they never heard of Senefelder?

On the other hand, maybe they have heard of

all these. Maybe they have heard how some of the progressive offset papers have outsold long established non-progressive papers, because of offset's ability to reproduce photographs and art work, as well as type, at low cost and on effective production schedules? We don't know, maybe the Publishers Association has an axe to grind in keeping a new offset newspaper from publishing.

But to base such an action on the fact that a paper is produced by offset lithography is slightly fantastic.

Just in case the California Publishers haven't heard of offset newspapers, we have sent the association a copy of the article "Newspapers by Offset," which was published in *Modern Lithography* in March, 1949. And in case the publisher of the *Sonora Daily* missed it, we have sent him one, also. Might provide a little ammunition for him.

IF the California Publishers haven't heard of offset it appears that publishers on the east coast have. The publishers of *Young America* in New York have just announced plans to switch their several schoolroom publications to offset lithography. Now produced by rotogravure, these magazines soon will be produced by web offset in several colors. Reasons given included better color and better legibility through higher fidelity in type reproduction.

At a time when some lithographers are eyeing rotogravure as a strong competitor on certain types of work, or as a possible complementary process to broaden their market, this news provides a little food for thought.

As a by-product of the switch, some of the publications recently published a picture story of the offset process as one of a series of lessons in the modern industries that make America tick.

55 Gallon Drums Now Lithographed

**Largest metal decorating press, oven, coater
and other equipment now turn out 50 x 72"
sheets for fabrication in New Orleans plant**



Left: C. M. Dickinson, R. Hoe & Co., displays one of the sample drums lithographed in four colors.

Below: L. to R.: Rheem plant manager L. A. Reber, Dr. L. H. Ott, chief research chemist, and Stanley S. Johns, Rheem project engineer, discuss details of the New Orleans operations.

COLORFUL Lithographed 55 gallon metal drums, made possible by a new 50 x 72" metal decorating offset press, and other large equipment, are now being offered to American industry by Rheem Manufacturing Co., New York. The press, largest metal decorating unit ever built, was delivered to the Rheem plant in New Orleans recently by R. Hoe & Co., New York. "Pilot Plant" manufacturing of the new barrels now is being carried on there, a Rheem spokesman said, and other presses of the same size, all single-colors, are on order for Rheem plants in Houston, Tex., and Richmond, Calif. Others have been ordered also, the Hoe Company reported.

Clarence W. Dickinson, offset division manager of Hoe, said the press is a new concept in the metal field, the largest one prior to this time having taken a maximum sheet of 42 x 54". The new press takes sheet metal from 24 gauge to 16 gauge; 18 gauge being used by Rheem at present. A single sheet, 50 x 72" of 18 gauge metal, weighs about 50 pounds, and a lift of such sheets runs to some 30,000 pounds. Press speeds range from 1,200 to 4,200 sheets per hour, depending on gauge and size.

To handle lifts weighing up to 15 tons, enormous strength had to be built into the press. A special feeder was built for Hoe by Dexter Folder Co. Special coating equipment and an oven large enough to handle the sheets, were built by Wagner Litho Machinery Div.



A blank for a barrel is about 36 x 71", while barrel ends are run in multiples on 50 x 72" sheets. Barrel fabricating equipment had to be modified by the Rheem Co. to eliminate the danger of scratching or marring the lithographed sheets.

L. A. Reber, New Orleans plant manager for Rheem, guided the installation and operation of the pilot line. The plant had lithographed containers up to 100-pound grease drums in size for a number of years. In mid-1949 the press, roller and drying equipment—each unit the largest of its kind ever built—arrived at New Orleans. Newest versions of standard drum fabricating equipment were ordered from regular suppliers.

Sheet steel is stored as received in bundles of 160 to 180 sheets, weighing on the order of 6,000 pounds per bundle. Feed equipment at roller-coater and press picks up each sheet with rubber vacuum cups and starts the process. The coater, press and oven are all geared to a maximum speed of about 4,200 sheets per hour, many times faster than the speed of the fabricating line because a run of sheets may have to make several trips through the press-roller-oven line to one trip through fabrication.

The Wagner oven, which covers 210 feet of the 300-foot-overall press-oven unit, is comprised of three sections: a pre-heat portion heated to from 200 to 275 degrees F., a baking section in which heat is controlled at from 275 to 450 degrees F. (depending on the composition of the coating which is being baked), and a cooling section which reduces sheet temperature at a controlled rate to eliminate possibility of thermoplastic effect and resultant "blocking" or transfer of coating from one sheet to the next when baked steel is stacked at the discharge end of the oven line. Each sheet in passage through the oven spends six minutes in the pre-heat section, 15 minutes in baking and seven minutes in the cooling portion.

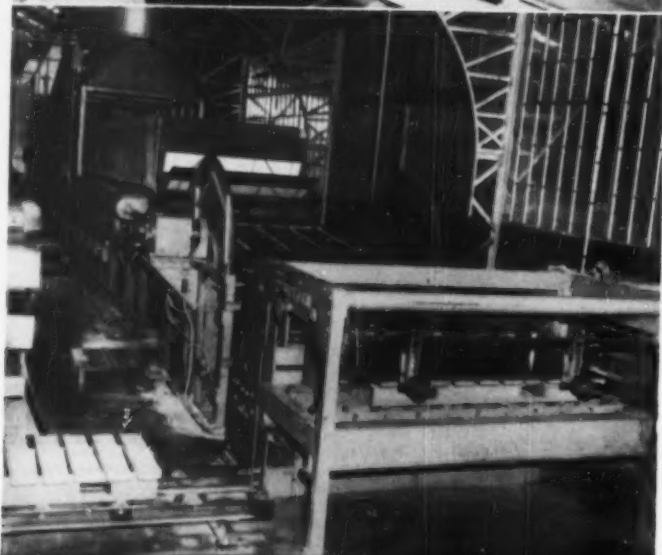
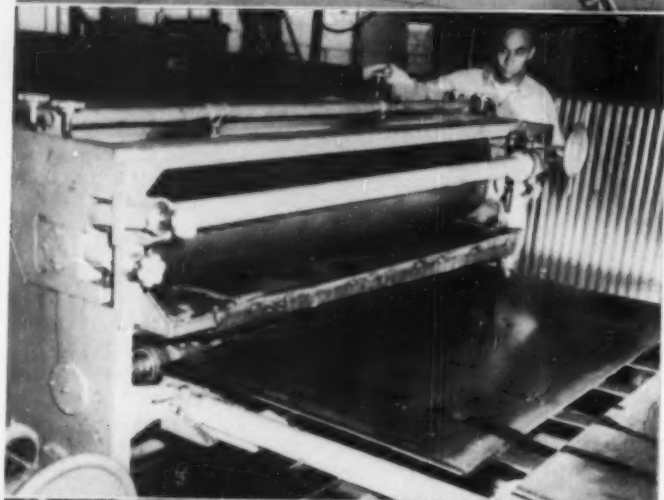
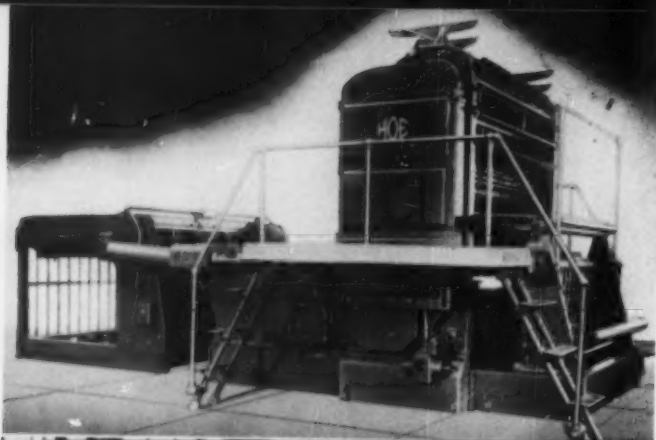
A Dexter sheet inverter at the discharge end of the oven conveyor can be engaged or disengaged at will, to deliver sheets at the end of the oven either coated side up for return to the

Right: Lithograph department foreman Sam Maniscalco checks temperature records at controls of the big oven.



Below: Pressman Louis T. Rigby (left) and Sam Maniscalco, litho foreman, watch sheets coming off the press for the sample display drums, one of which is shown on opposite page.





Top: The giant press, largest ever built for metal deforming, is over 24 feet long, over 18 feet high, 18 feet wide, including platforms, and weighs 20 tons. Center: Emil D. Mire operates the roller, where as it applies base color, lining, or protective coating to the large sheets. Bottom: Sheets emerging on conveyor from the huge oven in background pass the sheet inverter and go on the fabrication line.

press or roller-coater, or face down for transfer to the fabrication line.

Barrels normally are spray-painted after manufacture, and any further identification is added by rubber dies, silk screening or stencilling. The new lithographed barrels offer oil and chemical companies, and other users, a high quality full-color lithographed finish equal to that on the finest cans, toys or other products. Trade marks, advertising copy, illustrations, instructions, etc., can be lithographed in any color. Consistency in package design and color is thus made possible from the smallest unit up through the large drums. The baked finish gives the barrel high lustre and good attention value. A patent-protected process is used to coat drum interiors for bulk shipment of corrosive fluids or foods.

C. V. Coons, Rheem's sales manager, told *Modern Lithography* that barrel buyers were extremely enthused over the advertising value of the innovation. The barrels have a much brighter finish, there is better control over the coatings through the roller-coating method, and the finish is more durable. The lithographed products now cost 3 to 10 percent more than conventional drums. A national advertising campaign on the new barrels is about ready for release, he said.

Sample drums produced in three colors, red, white and blue, by Rheem, show close register color work, overlapping colors, small reverse lettering, and other possibilities. The message on the sample states: "The development of the container establishes a great new milestone in the history of the steel container industry. It will assure you the finest package possible for the shipment of your products."

"Distinctive brand designs for the body and head in any desired colors can effectively identify and promote your product to the world at an economical cost."

"A lacquer roller coating applied to a properly prepared interior surface protects your product from any foreign matter. For products which are corrosive and hard to contain, we apply specially formulated linings to meet the requirement."★★

How to Lick SUMMER PLATE TROUBLES



Scene in H. S. Crocker plant, San Bruno, Calif.

SUMMERTIME brings high humidity in many sections of the country. And abnormally high relative humidity usually means trouble in lithographic platemaking, because high RH and high temperature affect the chemical processes involved. The problem with most of these troubles is that they are obscure, you can't see them, and you can't even lay your finger on their elusive remedies unless you have a well-organized system of controls.

As most lithographers know, relative humidity is one of the big factors in the light sensitivity of any plate coating. The Lithographic Technical Foundation has found that relative humidity not only affects coating sensitivity itself but also greatly influences the degree to which other factors affect it.

Some way of controlling or measuring the sensitivity of a coating is essential in any attempt to control tone reproduction. Also, it is of vital interest to all platemakers because when the sensitivity of the coating gets too high or too low, it may be difficult to produce a good plate that will print with minimum trouble. A good working knowledge of the factors that affect coating sensitivity including relative humidity, can thus increase a platemaker's ability to make a good plate when conditions are bad.

* This article is based on information contained in the Lithographic Technical Foundation's "Research Progress" No. 17, and also from other sources.

Unfortunately, not all lithographers have such a knowledge of relative humidity . . . just what it is, what it means, and how it works . . . the things that make it change . . . the tools necessary to measure it . . . which ones are good or bad, and what has to be done to get an accurate reading with any particular instrument.

A general discussion of relative humidity with emphasis on where to measure it will be helpful. (The article "What is Relative Humidity" which appeared in the No. 15 issue of "Research Progress" might be considered the first of this series and its review is recommended to anyone who wants a full understanding of the subject.)

The measurement of relative humidity can be and frequently is very inaccurate, unless the operator thoroughly understands it. First of all, the platemaker must realize that the weather bureau's reports on relative humidity mean absolutely nothing as far as his platemaking procedure is concerned. LTF has pointed out two facts that need to be emphasized: first, *relative humidity must be measured* and second, *the measurement must be made as closely as possible to where the plate is being made*. The reason is that relative humidity can be very different inside and outside a building and even in different parts of the same room.

Effects of Weather

The fact that it is raining does not necessarily indicate what the relative humidity is either inside or outside the plant. Rain shows only that the relative humidity of the upper atmosphere reached the dew point (100% RH), the condensed moisture formed a cloud, and the moisture droplets became large enough to fall to the ground. Thus, the only thing that rain indicates directly is an atmospheric condition in the upper air. This might be completely different from conditions in the area where the rain strikes the ground.

If the rain continues, the atmosphere surrounding the plant picks up more and more moisture and this eventually does raise the relative humidity outside the plant. The rain also cools the outside atmosphere which makes for an additional increase in the outside RH reading. But only under very unusual conditions of continuous rain, does the outside RH during daytime working hours ever rise much above 90%. The outside RH is close to 100% only when a dense fog is present or during the night when dew is forming.

Inside the building, where the atmosphere has not been exposed to a lot of water and the temperature is probably higher, the relative humidity usually is a great deal lower.

The effects of temperature on RH are highly important. Relative hu-

midity varies considerably with small changes in temperature. For example, if the temperature in the platemaking room in the morning is 70°F, and the relative humidity is 70%, a 5° increase in temperature drops the relative humidity to 59%! If the temperature goes up another 5°, that is to 80° F., the RH drops to 50%. Due to the heat given off by arc lamps, motors, and the men themselves, a 10° rise in the temperature of a room in the first few working hours of the day is not uncommon.

These figures, of course, assume that there is no increase in the moisture content of the air in the room. Actually, the RH figures given here may be increased somewhat by moisture added to the atmosphere from the whirlers or from water that may be running or standing in the developing sinks. Moisture is also given off by workmen themselves but this is usually not too important unless quite a few men are working in a small room. But the examples do show why and how the RH may be changing constantly in a room during the day, why several readings should be made during the day, and how readings may be different in different parts of the same room at the same time.

The need for concern about RH and its variation obviously is greatest on humid summer days when measurements show that it is abnormally high—about 60%. It becomes very important when the RH gets up to 70% because at such times the platemaker is crowding his luck and a few degrees one way or the other, or a half hour of dark reaction one way or the other, can either "make or break" a plate.

The number of times that the RH really gets into this danger zone is surprisingly small in shops in the northern states and Canada. In the southern states 70% RH is quite common. A check of the LTF laboratory's platemaking records in Chicago throughout 1948 and 1949 showed that RH's above 70% were recorded only 14 times in the two years. These 14 instances include only five recordings of RH above 75% and only one that got up to 80%. A New York

plant recently checked its records for 1949 and found no RH's higher than 70-75% even during humid summer.

In most shops the platemaker may thus be confronted with really bad conditions of relative humidity on only a few days out of the year and his estimates of RH based on outside weather conditions can be completely inaccurate. The only way that the relative humidity can be determined is to actually measure it at the time the plate is being made and in the immediate area where the plate is being made.

Effects of High RH

What are some of the effects of high RH on various factors in platemaking?

High humidity greatly increases the light sensitivity of bichromated colloid coatings. This results in "thicker" albumin plates, and "sharper" deep etch plates unless proper adjustments are made. Some platemakers prefer to compensate for increased humidity by decreasing the proportion of bichromate in the coating. A more certain method, however, is to reduce the exposure. Every platemaking department should have a wet- and dry-bulb hygrometer, and readings should be charted, along with exposure records. From such charts, proper adjustments in exposure can be made for each change in RH.

Coating Thickness

Also, in hot, humid weather, a coating solution will produce thinner coatings. Beyond increasing the sensitivity this may cause albumin plates to develop hard, or to fail to develop. It will cause deep etch coatings to be penetrated by the developer and deep etching solutions with resultant incurable scum. To overcome these troubles either the whirler speed should be reduced or the Baume of the coating solution increased, or both.

Dark Reaction

High humidity also results in more rapid spontaneous hardening or "staling" of coatings in the absence of light known as "dark reaction," referred to above. This means that plates will develop properly only if

the maximum time between coating and development is decreased. Up to about 50% relative humidity, plates can be kept on the photo-composing machine 12 to 24 hours and still develop satisfactorily. Above 50% RH, however, the allowable time decreases rapidly. At 65% RH, 4 or 5 hours is about the limit for albumin plates. Four to five hours at 70% R.H. is about the limit for deep etch plates on aluminum; on zinc the "break" point is usually five hours at 75% R.H.

Albumin Scum

One of the most troublesome effects of high relative humidity is the production of albumin scum. This trouble can generally be overcome by pre-etching the plate, preferably with a cellulose gum etch and using cellulose gum in the final etching and gumming. Cronakel plates are also less susceptible to albumin scum than ordinary zinc plates. Another remedy is the bichromated gum treatment described in LTF Research Bulletin No. 6, page 24.

However, of all procedures that help to prevent albumin scum, the simplest and perhaps most effective one is LTF's recently developed "post-Cronak" treatment for zinc, and "post-Brunak" for aluminum. (These treatments are described in LTF Instruction No. 802, "Plate Surface Treatments.") The results reported by many plants using these treatments have been said to be remarkable.

Deep Etch Development

In the case of deep etch plates, the rate of development is affected by temperature, more with some developers than others. The developer, therefore, should be at room temperature, and its Baume should be adjusted so that the first application clears the plate in about two minutes. In the case of zinc plates, clearing is accomplished when frothing occurs uniformly over the entire printing area. Of course, at least two additional applications of developer of about two minutes each are necessary to complete the development.

(Continued on Page 109)

some elements of

COPY PREPARATION

IT is obviously an excellent idea for offset contact men and salesmen to be familiar with the A B C's of making drawings for offset reproduction. In many instances customers or prospects, unfamiliar with what has to be done, prepare art work which increases reproduction costs, and later they may question the cost of revisions which have to be made by the lithographer. When a salesman can explain the operations clearly, it will often preclude bothersome misunderstandings of final billed costs. It will also speed up the job. But it is surprising how many salesmen are unable to offer customers any help.

It is taken for granted that the employed artist in an offset plant

By Ray M. Hogan

Printing Institute
Philadelphia, Pa.

knows exactly how to make reproduction drawings for any type of work, and the contract, or free-lance designer, soliciting business for offset printing, should be able to furnish copy that will not need additional or corrective work in the offset plant.

Often when buying free-lance art work, it is discovered that the artist knew little or nothing about the correct procedure in preparing reproduction copy for offset negative making. Artists who are accustomed to drawing for photo-engraving, often are the

worst offenders, forgetting that offset press plates are not revised by routing, tooling or mechanical manipulations.

A recently published book on the subject of offset copy preparation is helping to educate artists and agencies on the proper ways to take advantage of the flexibility of the offset process.*

The following outline and "house-construction" analogy of copy preparation for simple color work has been found to work well for offset salesmen in explaining procedures to customers who do not have professional art staffs.

Taking simple things first, in a

* How to Prepare Art & Copy for Offset Lithography, by William J. Stevens and John A. McKiven. \$5.25 (Modern Lithography)



Key-line drawing. Second and third colors whited out with Chinese white.

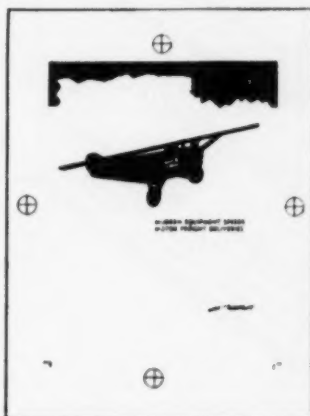


Photo-print for second color. Key-line and third color whited out with Chinese white.



Photo-print for third color. Key-line and color whited out with Chinese white.

Illustrations courtesy Merchants Motor Freight, Inc., St. Paul, Minn.

one color offset job the key-line is the only one required. It is (providing no extra line negatives are to be stripped from other copy) actually a facsimile of the finished printing.

In drawing for multiple-color printing, our key-line drawing, as shown in the illustration, is the foundation on which we build our additional stories . . . the drawings for each color specified as shown on the layout or comprehensive dummy.

This key-line drawing, in almost every instance is the copy for the black plate and should contain everything that prints in *all* colors; headings, text composition, rules, line drawings and, if specified, areas into

which halftone negatives, (for photographs or wash drawings) are to be inserted or stripped.

It must be remembered that *all* copy appearing on the key-line drawing does not remain there. Material to be printed in the additional colors is lifted off and transferred to the drawings for color. This material that eventually will be removed from the key-line drawing, is left on it to aid in accurate registering of the additional colors.

Where transfer of composition (headings and text) is to be made, this material need not be lifted off the key-line copy because the artist always has duplicate proofs on hand. It is left in place to assist in register-

ing and later cut away or masked out.

Except in the case of jobs requiring the registering of small areas, calling for "tight fits" the key-line drawing can be made same size. It should be done on illustration board and the overall size (trimmed size of sheet) and bleed, if any can be indicated in light blue lines, which will not photograph. After this is done the trim marks are put in with black India ink and the all important *register marks*.

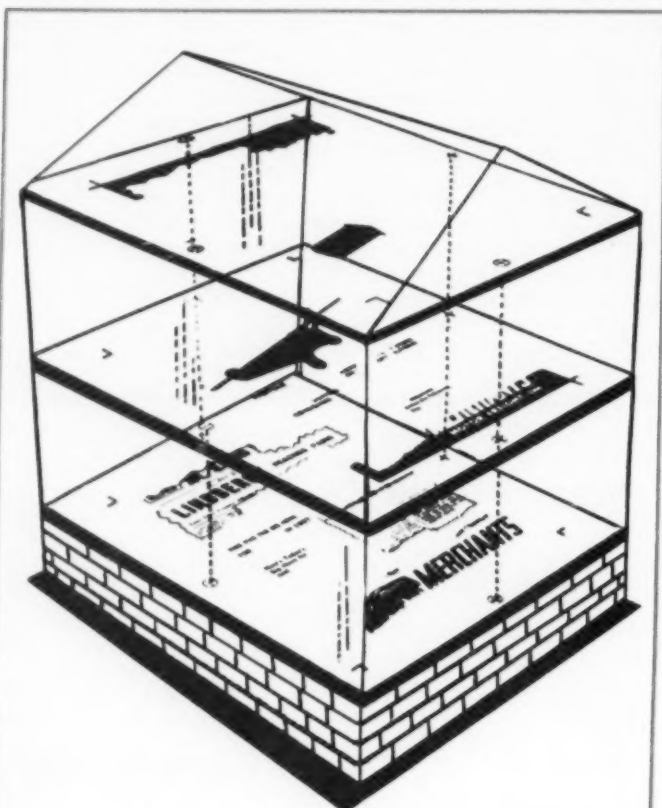
Illustrations, if line, can be drawn directly on the key-line drawing, or if in photostat, proof or photoprint form, rubber-cemented down in correct position, as shown on the layout or comprehensive dummy. After this is done, the composition reproduction proofs are rubber-cemented in position and our "ground floor," the key-line drawing is completed.

If halftones are specified these areas will be indicated on the key-line drawing, as will be explained later.

With the key-line drawing completed we are ready to proceed with the drawings for each color specified. These drawings are usually made on a transparent paper stock, architect's blueprint tracing paper, acetate or vinylite. (If tissue is used it must be heavy weight. It often buckles and shrinks when wet ink or paint is applied to it.) Architect's blueprint tracing paper gives good results and vinylite or acetate sheets always should be used when extremely close register is required. Where areas require the use of large masses of solid color, black masking paper, cut to size can be used and rubber-cemented to the drawing without any danger of buckling or shrinking due to too much moisture, as might happen if India ink or black paint were used.

The key-line drawing is taped or tacked to the drawing board and the transparent sheet for the color is cut to correct size and placed over it. It should be smoothed down absolutely flat and liberally tacked or taped all around to prevent any slipping. When this is done the trim marks and register marks, on the key-line drawing, are drawn in, in perfect register.

(Continued on Page 105)



Constructing a set of reproduction drawings for a multiple-color offset job is like building a house. The ground floor comes first, over which, according to the architect's blue print, additional stories are erected.

Our ground floor is the key-line drawing and our additional stories are the

drawings required for each color specified. These drawings must be in perfect register with the key-line drawing and with each other.

Our blue print is the layout, color sketch or comprehensive dummy, OK'd by our customer.

PROFITS FROM

OFFSET FORMS

Some Sales Ideas for the Smaller Shop

By David Markstein

New Orleans

IT IS well known that the offset lithographer has the logical process for the reproduction of all kinds of office and business forms. In fact this is one of the types of work on which the new photo-offset process proved its worth for economical black and white reproduction not many years ago. Usually this kind of work offers a fairly small percentage of profit, but where it pays off is on the orders which repeat and repeat and repeat.

It costs a lot less money to rule up a piece of paper, paste on the type, (or scribe a negative), and then shoot this paste-up, than it does to set ruled and squared forms in type. Furthermore, by hanging onto the plate, or storing the art work away for future reference, the offset shop is in a position to fill repeat orders at low cost and at high speed.

While this may seem obvious to the lithographer, it is amazing how many companies still are continuing to have their forms done by letterpress.

The advantage of going after this kind of order is that all types of businesses are prospects. The larger companies use forms by the bale in their offices. Department stores use scores, and sometimes even hundreds, of different forms, and they require

these in regular supply. Factories and warehouses are in constant need of forms. Even the little one or two man business requires some forms for efficient handling of its paper work.

Federal and state governments have contributed to the need for good office forms by their requirements of tax and other records which each business man must keep, and must have available for inspection. In recent years, the small operator who once carried things in his head and scoffed at the drudgery of paper work has come to accept the need for putting things in writing, and keeping records.

One lithographer whose shop is located in a medium-sized town in the Mid-west built up a thriving volume in sales and re-sales of office forms by dramatizing his competitive position in this kind of work. His system for getting the business was this: He would obtain one or more forms used by a business house whose orders he wanted to get. Then, he would estimate a price on each of these forms, taking reasonable care to see that he was competitive—and, if possible, better than competitive—with the prices for printing these forms by letterpress.

The next step was to write on the margins of the forms his prices for one thousand, five thousand, ten

thousand, or whatever quantity he estimated the purchaser bought at one time. Then, he would write a letter to the purchasing agent, office manager, or department executive of the prospect firm. The letter would point out that the litho shop was in a position, through the competitive advantage of its process over other methods of printing, to effect a considerable saving in office expense for the prospect.

"An opening like that was almost certain to get the prospect's attention," the lithographer explains, "and it practically insured his reading on into the rest of the letter. The sales message then pointed out that really money-saving prices for each form were noted on the forms themselves, which were attached to the letter. The letter requested an appointment by asking the prospect to return a business reply card. If a reply wasn't received within a week or ten days, I got on the phone, asking for an appointment to show how I could save him money on his office forms."

One result of this offset operator's enterprise in going after the office form business, is that today the company has a special designing department, manned by a systems specialist. They now offer to customers and prospects expert assistance in stream-

lining office and factory procedures. They can submit a set of one to a dozen forms for simplifying things.

Repeat orders nearly always come in for office forms. When they do, the second cost is considerably lower than the first, because with a good system of filing, the negative or the plate are readily available. This means a saving in the cost of running the job. The saving, shared with the customer, helps to build further repeat business.

"Price," says a Southern offset shop owner, "is not the only way to sell lithographed office forms. We are proud of the quality work we do, and—while extra high quality is not

always as important to the customer in form work, yet high quality can be an important sales point." Keeping quality high also will often open the way to other orders for lithography for letterheads, promotion and advertising."

This lithographer goes after the office form business by flooding prospect firms with samples of work he has done. Each month, the purchasing agent or other executive of each firm he considers a prospect receives in the mail one or two samples of good form work, with a reminder that the shop is ready to help the prospect, too, in cutting his routine costs.★★

PHOTO TIPS

By Eugene C. Moysen

Van Nuys, Calif.

★To produce screen tints with long parallel lines instead of the regular dot formations, cut a slit about 1/16" wide and 1" long in the center of a bit of metal or cardboard that can be fitted into the filter slot of the lens. The angle of the slit must be cut accurately at 45 degrees to conform to the angle of the screen lines.

Place a sheet of white paper in the copy board and move the board out of focus, then expose a sheet of film to the light coming from the slit. A flash gun, of course, will also do. An exposure of from 30 seconds to one minute is recommended.

★A reliable tray cleaning solution will make your stained developer bottles sparkle again—some are sold mixed, ready for use, and work quickly and very well.

Pour into the bottles but a few ounces of the cleaning solution, swirl it around inside, then wash out the bottle with several changes of cold, clear water.

★There have been countless controversies about the question of agitating film to squeeze maximum con-

trast out during development.

It has been found that constant agitation will produce more contrast whether it is in continuous tone, halftone, or line negatives, especially so for larger size films.

★Clean, hot water applied with a wad of soft cotton will do an excellent job of thoroughly cleaning stainless steel ferrotyping plates. Above all, don't use rough rags or abrasives of any sort on these fine surfaces, or the resulting scratches will ruin the plates, making it impossible to produce smooth glossy prints.

★Compensating glasses that are installed just behind the lens will collect dust when not in use. Be sure to check and clean these frequently before using, or eventually loss of image sharpness will result. This concerns particularly the types of glasses that draw up to a horizontal position when not in use.

Incidentally, be sure these are not left in position before the lens when making halftones, or there will be a flattening of all tones caused by underexposure when rays of light pass through the extra sheet of glass.

★Faster Graphic Arts Films.—There are several new faster films now on the market. Their processing requires no change of darkroom lights despite the added speed of emulsion, and they produce clean, sharp, contrasty negatives in line and halftones.

Very slight adjustment is needed on cameras equipped with the automatic lens stop closing devices now in use for halftone photography. For example, the 1½ minute gear substitution for the 2½ minute gear is the only change necessary on cameras using one particular device, with perhaps but a few seconds added "flash" exposure.

The exposure at f32 with the faster film can be reduced from 30 to 17 seconds for line work at same size. For contact negative and positive work a 45 percent reduction in time is adequate.

★Waste Film.—Such film need not actually be wasted. Incorrectly exposed film can be dunked in the fixing solution, cleared for a few minutes and washed well. It can then be used for various purposes by the stripping department.

★Negatives from Prints.—Excellent continuous tone negatives, from photographic prints lacking the original negatives, can be made with either slow commercial orthochromatic or panchromatic continuous tone film.

The panchromatic film produces very good copy negatives at f45 with about a 5 second exposure, a fine grain developer used at 68 degrees, and development for 2½ minutes.

★When a reduced size reverse is needed of a negative already on hand the fastest way to get results is to place the negative in the copy board, upon a pad of sheets of white paper so that the negative will be pressed down firmly by the glass of the copy board when ready for photographing.

Focus down to the required size, shoot, and develop to a timing slightly more than usual. This is needed because of the tinges of color left in the negative's whites from antihalation backing. A slight overexposure is also recommended.★★



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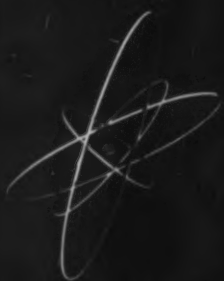
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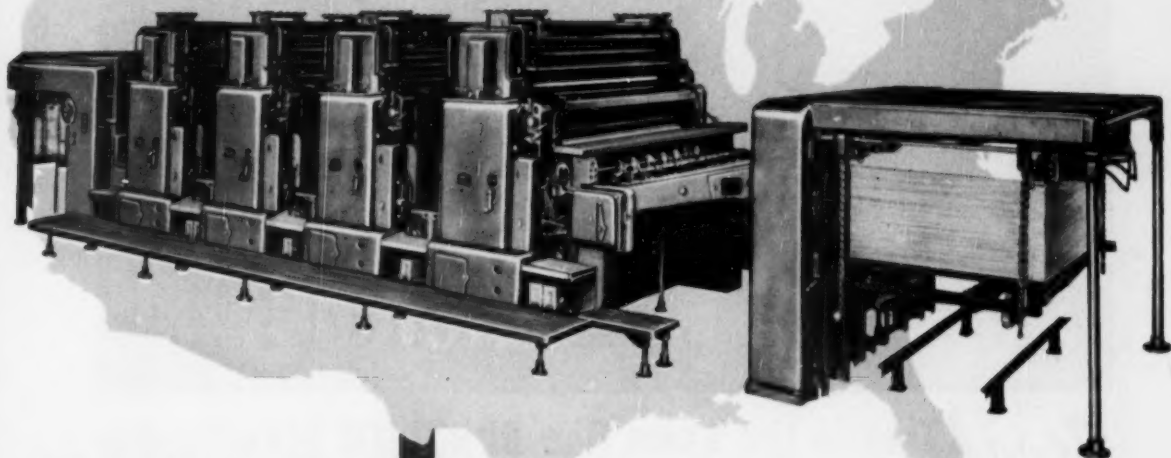
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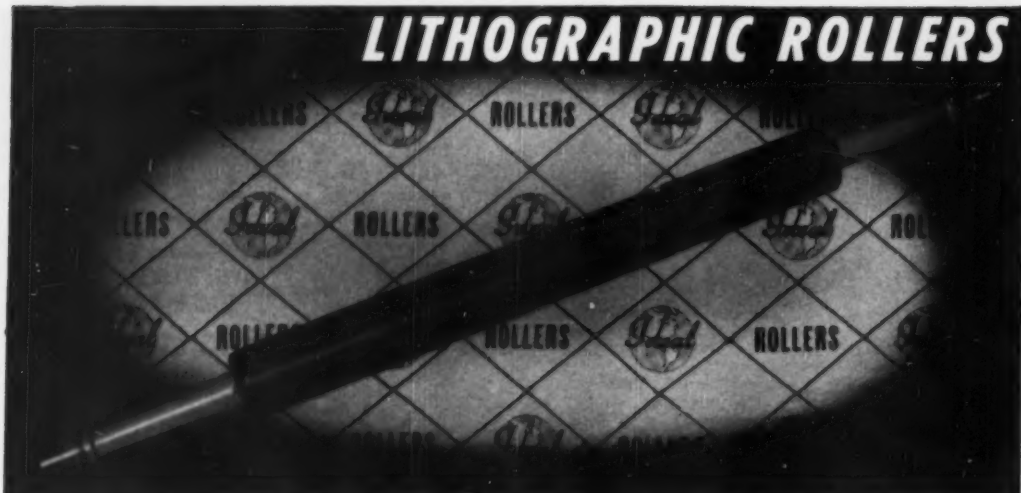
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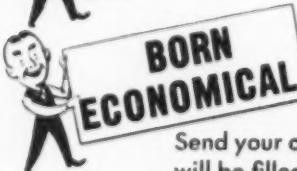


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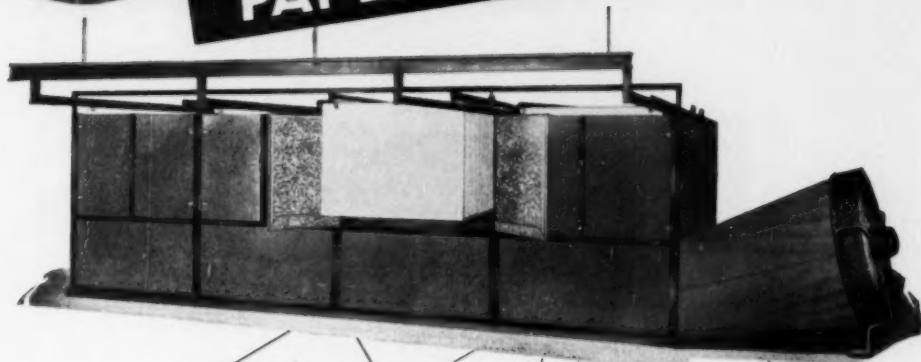
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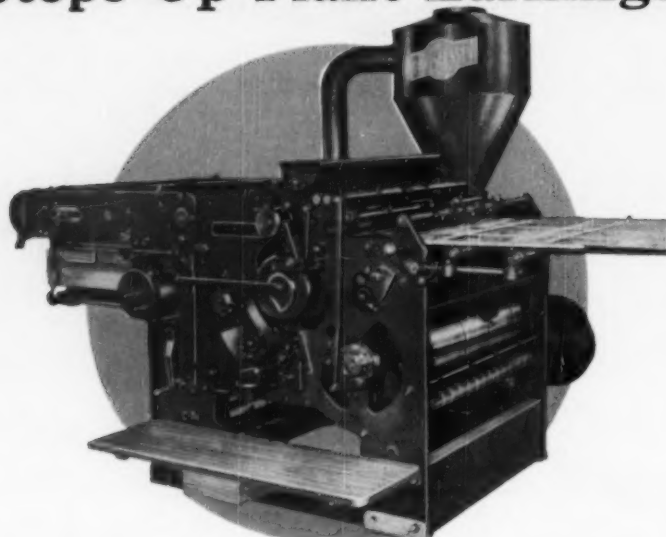
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TECHNICAL SECTION

Some Factors in BI-METAL LITHOGRAPHY

Dr. Marwin C. Rogers

Director of Research
R. R. Donnelley & Sons Co., Chicago
President, Technical Ass'n. of the Lithographic Industry*

THE broad acceptance of lithography for many types of printed literature has emphasized the need for increased reliability and plate life, particularly on long run work. Since the time of Senefelder, there have been numerous attempts to alter processing methods to attain improved quality and to lower costs, but this industry has stayed quite close to the conventional albumen or deep etch techniques for platemaking.

In the past few years, there has been a renewal of interest in those plates for offset lithography in which the printing and water carrying surfaces are two dissimilar metals. The interest in them has been due to many factors, but primarily it has come from those lithographers who are interested in (1) long press runs, (2) repetitive short press runs, and (3) those who think some improved quality will result. This kind of printing plate is commonly referred to as the "bi-metal" offset plate, and for the purposes of this paper, we shall restrict our consideration to those types of plates used as conventional offset plates with water solutions applied to the non-printing areas. We will not be concerned with the Pantone or similar proposals which attempted to utilize the peculiar properties of mercury.

The application of the two metal combinations to lithography is not

new. There appears to have been some recognition of this possible type of plate about 50 years ago, particularly the application of the mercury alloy. The history of subsequent developments, and the patent literature have been adequately covered by Mertle¹, and no further review is required here. Blau² has reviewed recent proposals and comments unfavorably on the application of chromium and its alloys for lithographic use.

There has been interest by our organization for nearly 15 years in the bi-metal plate, and the first successful commercial runs were made in 1938 from a copper plate over which had been plated a chromium layer. The image area was etched through the chromium. There were many problems associated with the making of this plate and it did not appear to be economically sound at that time. The war disrupted further attempts to commercialize the process, and work was resumed only recently.

The literature indicates that many combinations of metals have been proposed, and that the chromium or chromium alloy, and copper combination is most prevalent. This review is the processes representative of the current attempts at commercial development of bi-metal lithography.

Since the list is reasonably complete it may be well to repeat it here:

Name	Metals Used	
	Image	Non-Image
Bookleiman & Elfers	Cu	Pb
Ahlen & Akerlund	Cu	Stainless Steel
Hausleiter	Brass	Nickel
Coates	Cu	Chromium
I.P.I.	Cu	Chromium
Alber	Cu	Stainless Steel
Lithure	Cu	Chromium
Blau	Zn	Cr or Ni

Certainly, it would appear from the above that there is almost unanimous opinion regarding the metal combination. All plates, but one, use copper in the image area, and all except one in this list use chromium or a chromium alloy for the non-printing surface. Without resorting to theory it would seem reasonable to suppose that the basis for this choice must be practical performance.

We wished to determine for ourselves how great the difference might be between several metals. To determine the exact nature of the phenomenon of the bi-metal plates was bound to be somewhat difficult, and to require equipment not available to us at the time. It was evident, however, that two possible explanations for the bi-metal performance were feasible:

- (1) That the metals in themselves possessed surface characteristics making them suitable to bi-metal lithography, or
- (2) By some fortunate chance the properties of the films of the phosphate or gum arabic de-

* Paper presented at the second annual meeting of the Technical Ass'n. of the Lithographic Industry, Rochester, N.Y., April, 1950.

posited on the metals during printing were such that a hydrophobic film exists on copper and a hydrophilic film on the chromium.

It further may be said that these films should be relatively tough and insoluble, in order to resist the exacting press requirements.

For the conventional albumin or deep etch plate, the film explanation of performance is not hard to comprehend, but with the bi-metal plate it can be thought of only as a fortunate situation. In order that some experimental data be available to assist in the evaluation of bi-metal plates as proposed, two investigations were made:

- (1) The practical approach of trying several metals on a litho plate.
- (2) Making contact angle determinations on sections of clean metals to determine their wettability.

The theory that metal surfaces in themselves exhibit different wettability properties was difficult to defend, because the letterpress printer has for several years run copper, nickel, and chromium plates interchangeably on his presses. Except for isolated cases, there was little difference noted that could not be explained in a logical and sound manner.

The results from the practical laboratory attempts with several metals on a Multilith press are shown below:

Metal	Phosphoric Acid Fountain Solution	Ammonium Dichromate Solution
Chromium	Wet by water	Wet by water
Lead	Wet by water	Wet by water
Silver	Scummed	Wet by water
Nickel	Scummed	Wet by water
Zinc	Wet with ink	Wet by water
Copper	Wet with ink	Wet by water

These results show clearly why the plates mentioned earlier have attained some standing in bi-metal lithography. Perhaps there are other combinations not yet publicized, but it is interesting to note that the two metals, copper and chromium, fortunately appear to present a desired solution. Lead, although good from the lithographic point of view, is quite soft and probably offers some

wear problems. We do not know how successful the Bockleman and Elfers plate has been.

When evaluating contact angle determinations, one must be certain to consider the surface film present at the time determinations are made. All attempts in our laboratory to show differences between metals as such, have been unsuccessful. Private communications with two other laboratories have verified these findings. Stated simply, it has been impossible to find any measurable differences among well cleaned metal surfaces with respect to their wettability by inks. The same metal

plates, when immersed in water solutions, have given variable results. But to date, no effective or certain means for eliminating the surface films under these conditions has been developed. Practical requirements of our work have made it necessary to forego any further experiments; furthermore, data in this field have been determined by workers at the Lithographic Technical Foundation laboratories.

From the foregoing it is apparent that there are several processes for preparing bi-metal plates. Each process involves somewhat different techniques. Many of the proposed methods have been tried in the United States

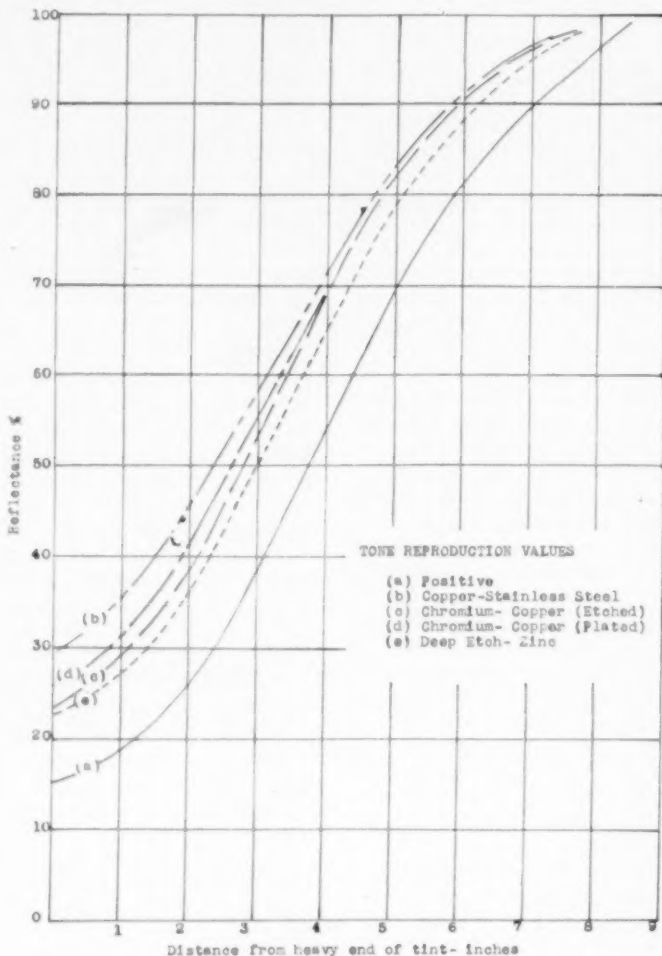


FIGURE 1

with varying degrees of success. The extent to which any of them is now in use is not known accurately, and certainly, the service to which each is being put varies widely. Which system is best?

One cannot make unqualified statements for any of the plate processes proposed. Too many factors must be considered. Is it length of run, printing quality, plate storage, or other qualities that are most desired? Other factors too cannot be ignored, and Elton², appears to have covered most of them:

- (1) Some processes require negatives; others require positives. A choice must be made by the user, and will be dependent on the type of work he does. (Will the plates be interchangeable with deep etch or albumin?)
- (2) Base metal ought to be inexpensive or at least permit reuse. It must be readily available in sizes, gauges, and tolerances required.
- (3) Chemical rather than electroplating would be desirable but not essential. (Should have minimum of investment.)
- (4) Recessed printing areas will have some theoretical advantage over the raised surfaces with respect to wear.
- (5) Process should avoid hazardous chemicals.

Additional factors, similarity to present techniques, and the correction of errors are very desirable. This is true particularly if economic factors indicate or require that two types of plates be used in the same department, and minor changes must be made.

It is frequently difficult to discuss the relative merits and requirements of any process in the graphic arts because of the interdependence of each operation on that which follows. The long run lithographer frequently refers to the life of his plates as being short; and yet, when the facts are reviewed it frequently can be shown that the short life is only a statistical figure. Large numbers of plates are usually rejected as being

unsatisfactory because of slight errors in tone value, or in the case of deep etch plates, dust spots may be serious. One can only conclude from a modest explanation of the processing methods required for all presently known bi-metal plates, that tonal errors will be slightly more critical, and that rejects for this cause may increase. There is likely to be less latitude permissible in the dot size on negatives or positives. Coatings are generally thinner. Those processes using positives must always contend with the dust spot problem. In the cases where the copper is removable, this should be no more serious than the present deep etch plates.

The most common of the processes mentioned above, and which have either gone into use in the United States or are being widely offered for licensing here, are the copper-stainless steel, copper-chromium-zinc, copper-chromium, and possibly copper-chromium-steel. The methods by which these plates are made vary, and space does not permit a complete review here. Demonstrations have been rather widely made and some commercial production is being turned out with copper-stainless steel plates made from either negatives or positives. In both cases the plate as it runs has a copper image on stainless steel. It has been reported (Blau³) that this plating cannot be done, and there have been others who have made similar statements. It is known, however, that this process is in use and that the plating, though difficult, can be accomplished.

This process like that of the tri-metal, the Coates, or this laboratory's version of the copper-chromium plate, requires an etching operation. Any etching is likely to involve an area loss, or as the photoengravers report it, an "etch factor." In the case of plates in which plating is done over an image, this area loss should not be experienced.

Figure 1 shows data obtained by us from several types of plates. It will be observed that, given a positive or negative, the reproduced scale is shifted in location but retains its shape. The curves show that one can-

not expect to have complete interchangeability of positives or negatives with all processes, and that it is quite possible to define the degree of change needed by conducting relatively modest tests. In the case of Figure 1, an identical positive-negative gray scale was used as a basis for each print made. The densities of the film were determined by use of the Reflection Meter (Photovolt 610) over located areas of the positive laid on the white offset paper. The printed proofs from each of the experimental plates were checked in the same manner, i.e. density against location on the scale. This appears to be an effective means for evaluating plate processes as well as platemaking materials. Examination of the curves reveals that all bi-metal plates checked in this work have greater reflectance, i.e. smaller halftone dots than either the deep etch plate or the positive. The copper-stainless steel plate shows greatest color loss in this instance. The etched chromium and plated chromium plates show nearly equal results. They do not support the "etch factor" theory very well for plates where chromium is etched. These data are not to be considered as representative of all plates, but they do show comparison between isolated single samples.

Of the processes most prominent today, the only one employing "grain" is the trimetal proposed by Whyzmus⁴. The balance of the plates utilize only that "grain" offered by the surface character of the metal used. Brush analyzer traces have been made in several "grains" and these indicate a roughness of 10-30 microinches as compared with conventional zinc plates of 60-100 microinches. This relatively smooth surface appears to operate satisfactorily on presses, but claims that such surfaces can be run indefinitely on water alone in the press fountains, appear to be exaggerated, and cannot be justified theoretically without considering other pertinent information.

The tri-metal approach using zinc, iron, or other metal should prove economical to many operations; and imperfections may be removed rather

readily. The recovery and re-use of these plates is not now practical. The individual user must determine for himself the economics for the kind of metal he uses.

Plates made by the etching technique would appear to be easier for adoption in the average plant, because of the similarity in techniques involved. The larger plant may not find this factor important, and may be readily able to adapt electroplating techniques required by other processes. Etching involves some process hazards, because to attack chromium, chlorides are usually needed, and the light hardened colloid resist is also susceptible to attack by the chlorides. This does not appear to have been serious in any work done so far.

On the basis of this limited review of bi-metal lithography, it is evident that no one kind of plate meets all requirements. There appears, however, to be no reason why a bi-metal plate will not possess many of the advantages necessary for long or repeat run lithography. Economic considerations not yet well known, will affect the extent to which these plates will be used, because their initial cost is somewhat higher than albumin or deep etch plates, and hence, rejects for errors become important. In this respect, the chromium-copper (plated) system is advantageous because it permits some inspection prior to plating. For long runs, or for the jobs with numerous short runs requiring stored plates, bi-metal plates offer much. Plates stored twelve months have been returned to press with no difficulties, and others have completed continuous runs of from several-hundred-thousand to a million impressions satisfactorily. These factors make bi-metal lithography attractive. On the other hand scumming problems have caused lifting of the plates shortly after startup.

Where costs do not justify a complete conversion in a plant to the bi-metal plate, the etched copper-chromium plate offers advantages to the deep etch plate user, and the etched copper-stainless steel plate would appear to be attractive to the albumin plate user. Both require a

minimum of processing technique changes.

All of these factors may vary with different plants. Where a large department operates with two processes now, or can subdivide within the plant, any other of the proposed processes may prove to be most attractive.

REFERENCES

1. *National Lithographer* 53, No. 7, 28, et seq. (1947).
2. *National Lithographer* 53, No. 5, 38-9, 88 (1947).
3. *Patra Journal* 10, No. 5, 118-27 (1947).
4. *Steel Horizons*—Allegheny Ludlum Steel Co. 12, No. 2 (1950), (Author's Addition).★★

TECHNICAL BRIEFS

From Current Literature in the Graphic Arts

Abstracts of important current articles, patents, and books are compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department of Lithographic Research, and (2) Books of interest to Lithographers. Either list may be obtained for 10 cents in coin or U. S. stamps. Address the Lithographic Technical Foundation, Research Dept., Glessner House, 1800 S. Prairie Ave., Chicago 16, Ill.

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Photography and Color Correction

*Mask Deficiency Area No. 3. Henry R. Long. *National Lithographer* 57, No. 4, April, 1950, Pages 34-35 and 80-81 (4 pages). Available process inks do not approach theoretical color requirements, therefore mixtures of three inks contain more black than they should (are degraded). An example is given where the necessary correction is accomplished by partial removal of the two lesser important colors. In the interests of press operation undercolor removal should go beyond this correction for saturation, and should allow the black plate to carry depth and drawing. In general, a black mask should be made from a proper combination of negatives and positives to eliminate black from the pure colors. The masked black should then be exposed onto the masks for the yellow, cyan and magenta to give accurate undercolor correction.

*Color Temperature: Its Use in Color Photography. O. E. Miller. *Journal of the Society of Motion Picture Engineers* 54, No. 4, April, 1950, Pages 435-44 (10 pages). Color temperature as a specification for light sources is inadequate to define any light source for color photography which departs appreciably in energy distribution from the black body. It probably should be restricted to use with tungsten incandescent lamps only. Meters devised to measure color temperature by means of measurements of the relative energy in two wavelength bands are likewise not trustworthy when applied to any but the black-body sources. A "three-point," rather than a "two-point," meter is needed for the precise control of photo-

graphic exposures. Such a meter should have sensitivity distributions that match those of the three emulsion layers of the color film.

*The Flexichrome Process. *American Photography* 44, No. 5, May, 1950, Pages 46 & 48 (2 pages). Flexichrome—a Kodak process for making color prints from black and white transparencies. The transparency is contacted or enlarged onto the Flexichrome Stripping Film, which is developed and bleached to a positive relief image. The image is dyed and stripped onto a permanent backing. When dry it can be colored with the Flexichrome dyes, which are taken up by the print in proportion to the amount of gelatin present. In this way dye can be applied in broad brush strokes but will automatically appear in the proper tone gradations when the excess is blotted off. A dye application replaces any dye previously in the area.

*Type Reproduction Proofs. *Canadian Printer and Publisher* 59, No. 3, Mar., 1950, Pages 42 & 52 (2 pages). A brief, non-technical article giving the requisites of type proofs suitable for photo-lithographic reproduction. The subject is discussed under the following topics: type, presses, rollers, stock, ink and the proofer.

*How to Prove Color Jobs Photographically. Franklin R. Payer. *Modern Lithography* 18, No. 4, April, 1950, Pages 37 & 105 (2 pages). The method and procedure for proving color jobs by means of a dye-transfer process. The process yields a color print which can be used as a proof for the artist when retouching sepa-

ration negatives. It is also suggested that this print can be used as a job proof in plants which do not have a proving press. This photo-proof is especially valuable to those shops specializing in "direct" half-tone separations. Formulas and procedure outline are given.

***Better Black Printers.** Frank Preucil, *National Lithographer* 57, No. 4, April, 1950, Pages 30-31 (2 pages). The first step toward a good black printer is a separation negative with the best tone reproduction. Lens flare harms a black separation by increasing the saturation of the colors relative to the blacks. A description of a flare test is given which discovered effective density ranges of 95% for coated and 90% for uncoated lenses. The presence of a filter pulled these figures to 81% and 70%, respectively. The new Kodak Ektar lens is cited as being exceptionally good in this respect. But most lenses will give better shadow contrast and separation from pure color if the black separation is made without a filter.

Planographic Printing Processes
Oxidation of Zinc Plates and Something about Graining and Counter-Etching. I. G. T. Nieuwe 3, No. 1, September, 1949, Pages 4-7 (4 pages). The essentials of a good graining process, the addition of dichromate, counter etching, heat-sensitive inks, and the tinting of offset plates by lead driers are discussed. *Printing Abstracts* 5, No. 3, March, 1950, Page 131.

Method of Treating Aluminum Surfaces. Ralph B. Mason, *Official Gazette* 634, No. 2, May 9, 1950, Page 600. *United States Patent Number* 2,507,314. The method of preparing an aluminum surface for use as a printing surface, which comprises treating the aluminum surface with a solution containing alkali metal fluoride and non-fluoride alkali metal salt, until substantial reaction ceases, subjecting the treated surface to the action of acid to reactivate the same, and thereafter repeating the fluoride and acid treatments in sequence stated.

***Lithographic Blankets.** E. Gurin, *National Lithographer* 57, No. 4, April, 1950, Pages 28-29 and 82 (3 pages). After a brief description of how offset blankets are made the author tells how a blanket should be put on the press and recommends as a wash a petroleum solvent with a boiling range of 190-260°F. A faster evaporating wash is difficult to handle and a slower evaporating wash swells the blanket too much. Special blankets of low absorbency have been developed for use with heat-set inks.

***The New Colloid Litho Plate.** Robert J. Lefebvre, *National Lithographer* 57, No. 4, April, 1950, Pages 32-33 (2 pages). A new steel based poly vinyl surface plate is described. The plate is significant mainly from a cost standpoint, in that it reduces the overall cost of plate-making. It is possible to make corrections on the surface of this plate and it is very easy to make draftings upon its surface. At present, a disadvantage inherent with these plates is size limitation (25" x 36").

Paper and Ink
***Roller-Type Applicator Fineness of Grind Gauge.** I. M. Bernstein, *Industrial and Engineering Chemistry* 42, No. 5, May, 1950, Pages 908-16 (9 pages). The roller-type applicator fineness of grind gauge is described and an account given of the

theory underlying its use in the quantitative evaluation of pigment dispersion. This paper also presents a study of its application to 3-roll milling of a group of representative pigments dispersed in heat-bodied linseed oil. The formation of secondary aggregates, termed impactoids, during the milling operation and of their subsequent dispersion can be followed by the gage method. Based on the data obtained, a mathematical expression for 3-roll milling was derived.

***Theory of the Printing of Lithographic Inks.** Part two: Greasing and Theory. Dr. Everett Carman, *Modern Lithography* 18, No. 4, April, 1950, Pages 45-48 (4 pages). In part two the author states that greasing tendency of an ink is a function of the wetting properties of both pigment and vehicle. He describes the effects of each, and by tables and diagrams shows that non-greasing inks should contain combinations of (1) hydrophobic pigment and hydrophobic vehicle, or (2) hydrophilic pigment and hydrophilic vehicle, or (3) hydrophilic pigment and hydrophobic vehicle. The combination of a hydrophobic pigment with a hydrophilic vehicle causes greasing.

***Wrinkles on Offset Presses.** *American Pressman* 60, No. 5, April, 1950, Pages 56 & 57 (2 pages). Wrinkles in stock can be eliminated by pressmen in several ways. When a wrinkle is caused by wavy stock the blanket packing can be cut with V-shaped slots which will stop wrinkling. Wrinkles can be caused by grippers out of square, paper jamming cylinder stops, paper not entering grippers flat, or excess moisture on paper. How to eliminate these wrinkles is described briefly.

***More About Absorptivity of Paper.** Charles F. King, *Inland Printer* 125, No. 1, April, 1950, Pages 43-45 (3 pages). A discussion of the roles of ink and water absorptivity and wettability of the paper in offset printing. The author cites evidence to indicate that wettability of the paper surface is more important than its absorptivity.

***Pre-Testing Paper for Ink Absorption.** Leo Cahn, *American Ink Maker* 28, No. 5, May, 1950, Pages 41 & 63 (2 pages). Density measurements of the K & N stain test for ink absorption is suggested as an evaluation method having improvements over visual evaluation. A medium stain of between .15 and .28 density usually gives good press results. It was noticed that the hue of the stain changed with the pH of the coating and with time beyond two hours. The use of the stain to check spottily sized coatings which will print mottle is also suggested.

***A New Coating Thickness Measuring Instrument.** *Metal Finishing* 48, No. 5, May 1950, Pages 64-66 (3 pages). An instrument for measuring thickness of non-magnetic coatings on steel by magnetic methods is described. This instrument has the advantages that it is energized by standard 110 volt A. C. lighting circuit power, is relatively insensitive to normal voltage variations in the power source, and provides a means for accurate, yet rapid measurement.

Lithography—General
***A Discussion of Halftone Reproduction in Offset.** Charles Wood, *Western Printer and Lithographer* 6, No. 1, April, 1950, 1950, Pages 23 & 24 (2 pages). Density and contrast are the most important quality factors in halftones

(others are smoothness, sharpness, detail and fidelity) and must be controlled to overcome the limitations of printing. The greatest limitation is reduction of contrast, from 2.0 or 3.0 on the photograph to 1.3 on the press print for coated stock and only 0.9 for uncoated papers. Soft uncoated stocks, by requiring a heavy ink lay for good solids tend to fill in and flatten the shadows; the thinner ink lay sufficient for good solids on hard coated paper tends to flatten the highlights. The halftone should compensate for this. The author points the advisability of standard methods for shooting quality halftones, and suggests two, both involving etching.

***The ABC of Offset.** George Jos. Lenzer, *Printing Equipment Engineer* 80, No. 1, April, 1950, Pages 40-42 (3 pages). In this installment the author briefly discusses the principles of halftone, care of copy, masking and mounting, and preparation of copy for the camera. A list of seventeen things to be remembered is included.

***'Lithure' Plates and Electronic Color Scanner Make Bows.** *Printing Magazine* 74, No. 4, April, 1950, Pages 46 & 47 (2 pages). A brief description of two recent developments of the Time, Inc. laboratories—the Lithure plate and the electronic color scanner. The Lithure plate is a copper plate, sensitized with a resinous emulsion which hardens to form an electrolytic resist in the image areas when exposed through a negative. With the unhardened resist removed chromium is plated on the non-image areas, after which the resist may be removed. The result is a series of copper-bottomed image "wells" somewhat like grave. The wells are claimed to be straight-sided, giving faithful tone reproduction. The electronic color scanner produces corrected color separations from transparencies. The corrections are: (1) color, (2) black plate balance, (3) under-color removal. Normal photographic procedures frequently fail in the latter two. The device employs a scanning beam which passes thru the transparency, point by point, is split up by the three separation filters and directed to three photocells. The resulting currents pass thru electronic circuits which perform the color correction, and then operate glow lamps to expose the separation negatives.

***Characteristics of Offset Blankets.** Robert F. Reed, *Lithographers Journal* 35, No. 1, April, 1950, Page 9. Part II of the article on blanket characteristics discusses oil absorption and "serviceability." Boiled linseed oil and a petroleum oil were used to test the absorptivity of blankets since these two oils represented most closely the two types of inks used in offset printing. It seems that blanket hardness has no relationship to absorptivity. Serviceability is the ability of a blanket to retain its original surface condition while in use. Blanket tackiness and glaze reduce printability. It was found that: 1. Phenolic and alkyd types of black ink were more harmful than linseed inks. 2. Phenolic type ink with tungstated methyl violet pigment was similar to linseed type black ink. 3. Heat-set black with no driers was almost harmless. The survey was helpful to both the lithographer and the blanket manufacturer.

Graphic Arts—General
***Photoengraving in 1949.** H. M. Cartwright, *Photographic Journal* 90A, 1950, Pages 134-35 (2 pages). This is a survey
(Continued on Page 109)

JOMAC ROLLER CLEANER

- Cleans three or more dampener rollers at once
- "Breaks in" new dampener coverings
- Removes high spots, wrinkles, fuzz and lint
- Saves valuable time on press adjustments



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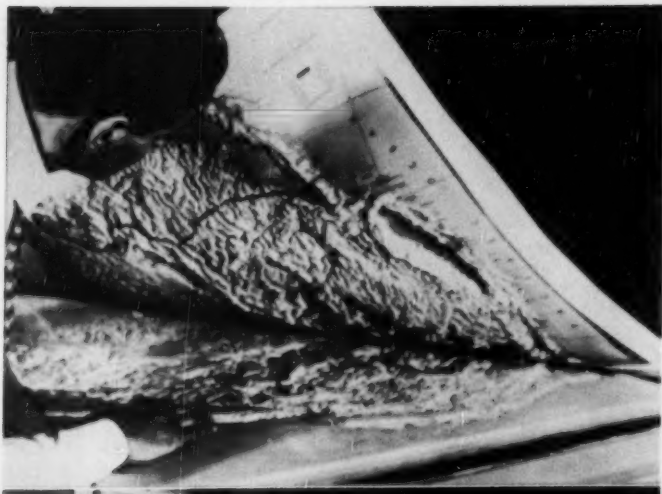
Especially designed grooves in the Jomac roller cleaner give you all the advantages of scraping with none of its disadvantages.

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Plastic Relief Maps Lithographed

Lithographed Vinylite plastic maps, molded into relief patterns, are now being marketed to replace the older style relief maps of plaster. The final map is 64 x 40". The flat sheet of Vinylite is lithographed by Ketterlinus Lithographic Mfg. Co., Philadelphia, and the maps are published by Aero Service Corp., Philadelphia. From a carefully built-up master relief map of clay, a reverse map of plaster is made to serve as a mold. The lithographed sheet is placed over the mold and heated, and forms over the mold. Cooled, the plastic sheet becomes rigid and is stripped from the mold (top photo).

J. E. Thompson, secretary of Ketterlinus, said that the ink problem was the

major one connected with the job. "A sheet of glass is more absorbent than the Vinylite," he said. He credited A. J. Pingarron of IPI and Walter A. Harris, offset pressroom superintendent at Ketterlinus, with solution of this problem. "The accuracy of the positives prepared by the Aero Service Corp. was remarkable," he said. "Opaque inks were required for the base colors, and there was no opportunity to make corrections for register in overprinting the key colors. Because each sheet of the Vinylite weighed approximately three pounds, it was necessary to slow the Harris LSG press far below its normal speed. Enough static is generated in a sheet of Vinylite to literally make your

hair stand on end," he said. "To minimize this condition, Simco static eliminators were used on both the feeder and delivery end of the press."

LNA Material Widely Used

For the past four years the Educational Department of the Lithographers National Assn., New York, has been supplying educational material to advertising courses on the advantages of the offset lithographic process. Previously such courses usually taught production by letterpress only.

During the past twelve months, H. C. Latimer of LNA reports, 463 advertising courses given by colleges, advertising clubs, production men's organizations, and by commercial art schools have made use of the material. It is estimated that each year well over 20,000 men already working in advertising departments and in agencies, or preparing to enter advertising work, have received instruction on the advantages of the offset process. Since the art director or the layout artist frequently have much to do with the selection of the printing process to be used, LNA said, special attention was directed to the commercial art schools on lithography's unique advantages for reproducing the various art techniques.

LNA pointed out that advertising text books now devote more attention to the lithographic process and its use than formerly. One of the most recent of these, Prof. David H. Hymes' book "Production in Advertising," devoted more than 23 pages to lithography, drawing on the LNA material for much of the data.

DuPont Appoints Kurtz

J. H. Kurtz, Jr., formerly assistant to the director of sales of the DuPont Company's Photo Products Department, has been appointed manager of the Photo Products Department's New York district office, effective May 1. Mr. Kurtz joined DuPont in 1926 and has been with the Photo Products Department since 1943. H. A. Dumont will be assistant to the district manager of the department's New York district office.

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A Complete Line of New Rag

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THROUGH THE GLASS

THE world's largest color transparency—18 feet high and 60 feet long, was unveiled in Grand Central Station, New York, May 16, to promote Kodak film. Actually the huge display is made up of numerous smaller Kodachromes, pieced together to form three huge illustrations. The sign is illuminated by over a mile of cold cathode tube lights.

Von Hoffmann Press, St. Louis, recently distributed to selected customers and prospects, complimentary copies of the book "Mississippi Panorama" which it produced for a client in that city. The book is illustrated with historical scenes of river life, many in full color. Reproduction was by letterpress, with an offset portfolio carrying a sales message.

Robert M. Werblow, president of the Polygraphic Co. of America, recently was elected a director of the First National Bank of Bennington, Vt.

An interesting commentary on copy for offset lithography was made recently by J. Tom Morgan, Jr., head of the Litho-Krome Co., Columbus, Ga. Addressing a group which included buyers of offset, Mr. Morgan said: "All of us have seen lithographers take abominable copy and produce abominable reproductions from it—some of it no other process could reproduce even if it tried. Offset lithography is a versatile process and will even reproduce poor copy. So offset lithography got a black eye in its infancy all because its resourcefulness and adaptability were misunderstood and misused. All of us are to blame—but in spite of this mistreatment, offset lithography has proved that it can go to the other extreme, and produce the finest reproduction when given the finest copy. Remember that the next time you prepare copy for your offset lithographer."

William J. Morgan, son of the head of the Morgan Lithograph Co., Cleveland, Ohio, and an associate of the firm, has a sideline of speedboat racing. His 225-horsepower speedboat—designed to flash over the water at 100 miles per hour—was

scheduled to race in Pittsburgh during May.

The 23-year-old youth nearly lost the services of his craft, which is rated one notch below the spreaders in the Gold Cup class, when its launching equipment broke loose recently as it was to be launched at the coast guard station at Cleveland.

Paul C. Clovis, president of Twentieth Century Press, Chicago, and president, also, of the Graphic Arts Association of Illinois, was named by Chicago's Mayor Kennelly a member of a 12-man advisory committee to develop a program for the reform of deplorable conditions on that city's west side "Skid Row."

The Columbus Bank Note Co., Columbus, Ohio, is one of several firms offering one week summer jobs in the Columbus Sales Executives Club's "I Am Sold on Selling" contest. The contest is open to all high school, college and university students.

Charles C. Haffner, Jr., president of R. R. Donnelley & Sons Co., Chicago, was one of 14 prominent Chicago business men on a committee which helped to make memorable the fourth annual "Future Unlimited" banquet of Junior Achievement of Chicago, May 23. Members of Junior Achievement are teen age boys and girls who gain practical business experience by organizing groups for manufacture and sale of products or to provide a service, each under the guidance of a business executive.

R. Shelton Finley, Nitschke Printing & Lithographing Co., Columbus, Ohio, has been named to the board of trustees, Advertising Club of the Columbus Chamber of Commerce. Robert Kelley, president of the Columbus Bank Note Co., retired as president of the organization.

Edward H. Sundermann, vice president of the Progress Lithographing Co., Cincinnati, presided over a discussion on membership promotion at the 46th annual convention of the Advertising Federation of America in Detroit May 31 to June 2. Mr. Sundermann is president of the Cincinnati Advertisers' Club.

James A. Benson, Jr., manager of the Columbus, Ohio, office of the Stecher-Traung Lithograph Corp. and Miss Emalee Patten of Dexter City, Ohio, were married recently in Columbus.★★

Harris Installations

Installations of offset presses and other equipment, during the month of March, have been announced by the Harris-Seybold Co., Cleveland. Following is a list of firms getting presses, with a partial list of Seybold cutter and other machinery additions:

Conde Nast Publications, Greenwich, Conn., 22 x 34
Franklin Press, Inc., Miami, Fla., 21 x 28
Darby Printing Co., Atlanta, 17 x 22
Chief Printing Co., Chicago, 35 x 45
Photopress, Inc., Chicago, 35 x 45, and 54" cutter
Sullivan & Co., Chicago, 17 x 22
Stewart Simmons Co., Waterloo, Ia., 22 x 34
Ben M. Wolf, Printer, New Orleans, 17 x 22
Haynes Lithograph Co., Silver Spring, Md., 42 x 55 two-color
Inland Press, Detroit, 21 x 28
National Lithograph Co., Detroit, 35 x 45 two-color; and 42 x 55 two-color
Christie Litho & Ptg. Co., Duluth, Minn., 43" cutter
Holden Printing Co., Minneapolis, 21 x 28
Jensen Printing Co., Minneapolis, 42 x 58 two-color
Mall Marketing, Inc., Minneapolis, 17 x 22
Deluxe Check Printers, Inc., St. Paul, 21 x 28
Von Hoffmann Press, Inc., St. Louis, 42 x 58 two-color
A-1 Printing Service, Omaha, Neb., 17 x 22
Ralph Ptg. & Litho Co., Omaha, 35 x 45 two-color
Uniform Ptg. & Supply Co., Div. Courier-Citizen Co., Brooklyn, 22 x 34
Peter F. Mallon, Inc., Long Island City, N. Y., 22 x 34
American Offset Co., New York, 42 x 58 two-color
Case-Hoyt Corp., Rochester, N. Y., 22 x 34
Palm Bros. Dealcomania Co., Cincinnati, 35 x 45
Young & Klein, Inc., Cincinnati, 22 x 34, and 20 x 34" Sunin camera
American Greeting Publishers, Cleveland, heavy duty die cutting press
Copiflyer Lithograph Corp., Cleveland, 35 x 45
Electric Printing Co., Cleveland, 22 x 34
Sedgwick Publishing Co., Martins Ferry, Ohio, 17 x 22
Carpenter Litho & Ptg. Co., Springfield, Ohio, 17 x 22
Lagonda Printing Co., Springfield, Ohio, 17 x 22
Agency Lithograph Co., Portland, Ore., 17 x 22
W. B. Saunders Co., Philadelphia, 17 x 22
New Hope Press, West Conshohocken, Pa., 22 x 34
Methodist Publishing House, Nashville, Tenn., 50" cutter
Franklin Printing Co., Newport News, Va., 17 x 22
Everett Waddy Co., Richmond, Va., 50" cutter
Whittier & Shepperson, Richmond, Va., 17 x 22
Pollock Bros. and Co., Montreal, heavy duty die cutting press
Regal Stationery Co., Ltd., Toronto, two 21 x 28
Rust Craft, Ltd., Toronto, 35 x 45 two-color

Season of Creation

The power of life is created anew with the coming of Spring and Summer. The gospel of Nature may be read in the miracle of awakening that transforms the barren countryside into a marvel of beauty. Along the rural roadside, heart and mind are invigorated by the magical sight of a world regenerated.

The creative energy of this season is always present in printing. All year round, ideas in print brighten the world with luminous vitality. The human spirit is refreshed as the imagination is carried along graphic pathways in every season.

The ability of printing to infuse new life into a sales-lagging product is a well-known business fact. It is important, of course, to augment the visual appeal of a printed message by using fine papers. The printer and advertiser can depend upon West Virginia's fine papers to provide the characteristics that are essential in outstanding graphic production. These papers, available in a wide range of selection, are made for every printing technique.

Ideas for using fine papers flow like a freshet from West Virginia Inspirations for Printers, No. 180. The cover of this issue features the painting "Blossom Time", by Carl Wuermer, shown at the right. Your copy of this famous publication of creative design may be obtained without cost by writing or phoning to the nearest West Virginia Pulp and Paper Company Distributor or to any of the Company addresses listed on this page.

The Cover Artist: Carl Wuermer, an American citizen of German birth, studied at the Art Institute of Chicago. He has won honorable mention and cash prizes at various competitions and his work is represented in the Municipal Art Collection in Chicago, at Amherst College, the Grand Central Art Galleries, New York, and the Encyclopedia Britannica collection. He was awarded the prize, by popular vote, at the Carnegie Exhibition at Pittsburgh, in January of this year. He is an avid student of nature in all its various phases, especially trees and early American architecture.



WEST VIRGINIA PULP AND PAPER COMPANY

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Public Ledger Building, Philadelphia 6
503 Market Street, San Francisco 5



BLOOMING TIME, BY CARL WOODRUP, FROM THE GRASSO CENTRAL ART GALLERY, NEW YORK

West Virginia Inspirations for Printers 180

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TO THE
BETTERMENT
OF
LITHOGRAPHY**

**SCRATCHPROOF
DRYER No. 3**

Prominent lithographers throughout the country have learned to appreciate Scratchproof Dryer No. 3 for its unique characteristics, for the economical and successful ways in which it has helped them with their drying requirements.

Results have proven Scratchproof Dryer No. 3 is the most practical dryer on the market today.

- ★ Quick drying without crystallization or chalking of ink.
- ★ Improves the lifting quality of inks, particularly on two and four color presses.
- ★ NON HARDENING of inks on distributing rollers.
- ★ Non drying of inks on press during long lapses of idle press time for unforeseen reasons, no washups during lunch hour.
- ★ Acts as a lubricant in the ink on the distributing rollers whose temperature rise tends to further dissolve SCRATCHPROOF DRIER No. 3, giving the ink a shorter fine binding.
- ★ Prevents too much emulsification or waterlogging of ink at high speeds.
- ★ Will not create after-tack in your pile, thereby eliminating summer heat and moisture difficulties.
- ★ Will not injure press rollers or rubber blankets, and will not discolor zinc or aluminum plates.
- ★ Has excellent suspension, body, and flow. Its non-settling qualities give ink necessary "slip" and tack for better distribution.
- ★ Will not cause any injurious effects if used in excess—in fact, this procedure is recommended in certain types of inks to improve their working qualities.
- ★ Ink mixed with SCRATCHPROOF DRIER No. 3 will remain tough and elastic indefinitely.

Don't be satisfied with substitutes. For better lithography . . . try SCRATCHPROOF DRYER No. 3 . . . let your own test prove its benefits to you . . . judge by RESULTS. Send for your trial order today.

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MANUFACTURER OF HIGH GRADE
LITHOGRAPHIC INKS PRINTING
DEEP ETCH CHEMICALS AND SUPPLIES

FACTORY:
BROOKLYN
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MANUFACTURERS OF DAMPENING ROLLERS, FLANNELS AND MOLLETON COVERS

AIR CONDITIONING

Methods of Dehumidification

PART 7*

THERE are three types of equipment available which dehumidify by means of sorbents. They have one characteristic in common well adapted to air conditioning in the lithographic plant: dehumidification and control of relative humidity. Heating or cooling and control of

temperature are separate operations. It is unnecessary, as in the case of refrigeration, to cool air below the dew point in order to remove moisture.

These three types employ:

- (1) Silica gel.
- (2) Lithium chloride.

- (3) Triethylene glycol.

Silica gel is a prepared form of silican dioxide (silica). It has an extremely porous structure, the surface area (external and internal) being more than 50,000 square feet per cubic inch of the material. Moisture is removed from the air by a process of physical adsorption. The moisture is condensed within the pores of the silica gel, transforming latent heat into sensible heat—which is later removed by separate means.

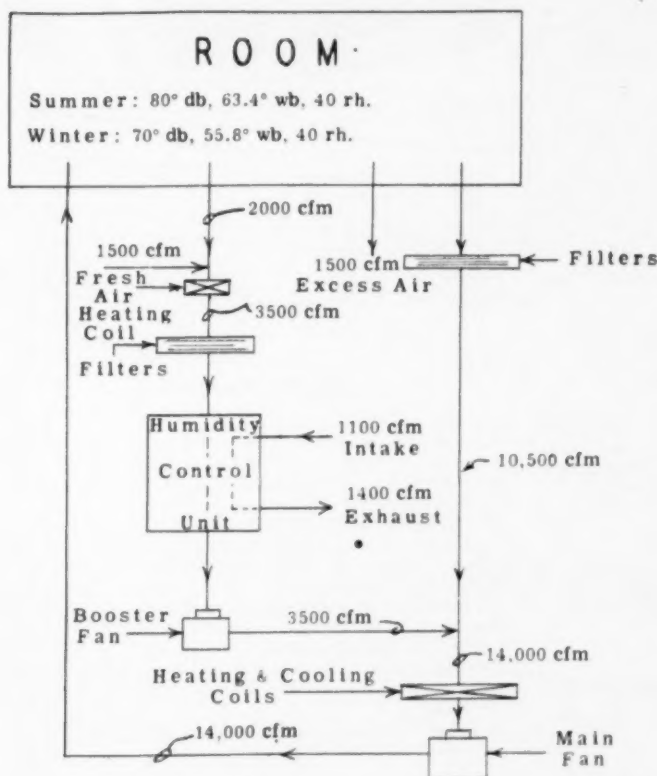
The halide solution generally used for dehumidification is lithium chloride, although calcium chloride, calcium bromide or combinations of these halides have also been used. In their use favorable vapor pressure characteristics must be obtained for efficient operation.

Independent control of relative humidity and of temperature is obtained by substantially the same means as with silica gel equipment previously described, and with triethylene glycol equipment, description of which follows:

Triethylene Glycol

As with silica gel and lithium chloride, relative humidity and temperature are independently controlled in the triethylene glycol system.

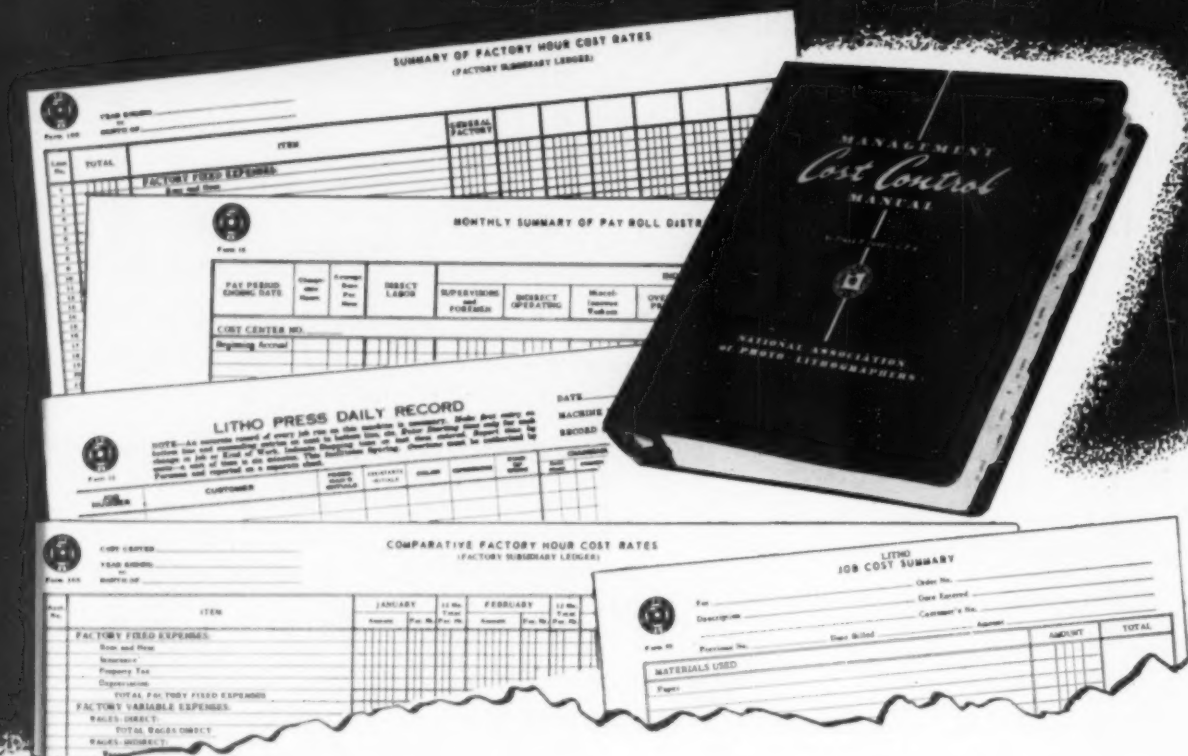
In the absorber, dehumidification and cooling occur simultaneously. The ability of triethylene glycol to absorb moisture from the air depends upon the concentration of the solution and



Schematic diagram of the air conditioning system, Strobridge Lithographing Co., Cincinnati. Engineers and architects W. W. Carlton & Associates.

*This series of articles comprises excerpts from the book "What the Lithographer Should Know About Air Conditioning," compiled by Karl Davis Robinson, and being published by the Lithographic Technical Foundation, 181 East 39 St., New York 16, N. Y. (\$2.50). The book is now available.

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Two Methods for Determining Actual Factory Hour Cost Rates
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its temperature. Its dehumidification ability decreases as water is absorbed, and the solution becomes dilute. It also decreases as the temperature is raised.

The principal economy in dehumidification is the use of low pressure steam for regeneration, which is usually less expensive than the electric energy required in refrigeration.

Control of relative humidity is simple, direct and independent of temperature control. When operating at full capacity, air leaves the absorber whatever its temperature, which is dependent upon temperature of the cooling water, at 25 percent relative humidity. With a sufficient volume of air passing through the absorber, this is more than adequate to handle the moisture load in the lithographic plant. A humidistat in the conditioned space controls entry of steam into the solution heater. This in turn controls the amount of reactivated glycol returned to the absorber and the relative humidity of the delivered air. Relative humidity may be controlled by this means, independent of temperature, to within ± 2 percent.

In dehumidification by refrigeration it is sometimes necessary to heat the air in order to maintain the required temperature level. In dehumidification by an adsorbent or absorbent it is necessary to cool the air in order to maintain the required temperature level.

With a sufficient volume of water, at a sufficiently low cost and a sufficiently low temperature, no other cooling means is required. The following table shows the relation between temperature of cooling water in the absorber, with full regeneration of the glycol, and of the conditioned air output, which is constant at 25 percent relative humidity.

Temperature F. of cooling water	70	75	80	85
Temperature F. of conditioned air	80	83	87	90
Dew point F. of conditioned air	41	44	47	50

Since 80 or 85 F. is the maximum desirable temperature for the lithographic plant, it is obvious that under hot weather conditions cooling means

will sometimes be required to handle at least part of the heat load in the plant. These may be:

- (1) After cooling, if sufficient water of sufficiently low temperature is available.
- (2) Over-dehumidification.
- (3) Supplementary refrigeration.

Over-dehumidification in this application means furnishing a large amount of air from the absorber at 25 percent relative humidity. Before reaching the conditioned space, this air is passed through an adiabatic washer previously described, where the air is cooled and humidified to the extent necessary to obtain the required level of relative humidity when mixed with the air in the conditioned space. The water in the air washer is re-circulated, producing the adiabatic saturation previously described.

Supplementary refrigeration may be used to maintain the desired temperature level. Since this refrigera-

tion is required merely to lower the dry bulb temperature, it is not required for dehumidification and, hence, never lowers the air temperature below its dew point. Therefore, simpler and less costly refrigeration equipment, with a much lower rating in tons of refrigeration than dehumidification equipment, will suffice. Depending upon the temperature of the available water supply, this supplementary refrigeration would in general be required only for peak heat loads.

In winter, when in general it is necessary to add moisture to the air, instead of an air washer or other humidification equipment, the absorber can sometimes be used. In this application the concentrator does not operate. Water under humidistat control flows into the sump of the absorber. The glycol is diluted with water and a reverse process occurs: the water held by the glycol enters

(Continued on Page 105)

STONE AGE STUFF



Modern Lithography

"Bring some water.—J. D. fainted when he saw this job ticket!"

PERFECTION
IN LITHOGRAPHIC PLATES

Whether it's a regular, dependable, everyday source of lithographic plates, or a place to turn to when your own department is overloaded, you can count on our excellently equipped and staffed plant to serve you fast and efficiently.

Why not try us? Just write or call today.

N.J. LITHOGRAPHERS' SERVICE

20 SHIPMAN STREET • NEWARK, 2 N. J. • MARKET 2-5710

"Offset Plates for the Trade"

Soderstrom Leaves Metro. Assn.

The resignation of Walter E. Soderstrom as executive director of the Metropolitan Lithographers Association, New York, effective May 31, 1950, was "accepted with regret" by the association's board of directors recently. He has agreed to help in selecting and "breaking in" a successor to the post.

The pressure of other work was given by Mr. Soderstrom as the principal reason for the move. He stated that the MLA had grown from a membership of 13 companies when he took the position, to today's membership of 80, which includes most of the larger shops in the New York area. Also during this period the National Assn. of Photo-Lithographers, of which he is executive vice president, has had an increase in membership to nearly 400 firms. Under this growth, he said, the work of both associations had become too heavy, and therefore he found it necessary to give full time to the NAPL. He will continue with this latter association, which is national in scope, with offices at the same location, 317 West 45 St., New York 19, N. Y.

Mr. Soderstrom joined the MLA, then called the Eastern Lithographers Assn., October 1, 1941. Its purpose is to carry on labor negotiations in the New York area. William Winship, Brett Lithograph Co., is president of the MLA.

7c Wage Rise in Cleveland

A wage increase of 7c per hour for all apprentices and journeymen whose present minimum scale is \$49 or less per week, and 9c per hour for those over \$49, was provided for in a new agreement concluded May 12 between lithographic employers and Local 6, Amalgamated Lithographers of America, Cleveland. The agreement also provided that "The em-

ployers are sympathetic to the union's proposal to with-hold \$2.00 per week from the wages of employees for the purpose of purchasing pensions; and whenever a plan is developed that is legally acceptable to the employers' attorneys, they will cooperate with the union in this respect." The agreement was effective May 15.

Milw., Seattle Labor Pacts

Lithographic labor agreements were reached recently in Milwaukee and Seattle. In Milwaukee a 5c per hour increase across the board was agreed upon, with no other important economic changes.

In Seattle an increase of \$1.50 per week and a welfare plan of \$2 per week were agreed upon.

Muirson to Install 4-Color

A four-color Miehle offset press as well as a two-color are to be included in the equipment to be installed at the new plant in Meriden, Conn. of the Muirson Label Co., Inc., George R. Langlois told *Modern Lithography* in May. This is the firm's first entrance into the offset field, and the new plant is expected to be in operation sometime in July. The company has letterpress plants in Peoria, Ill. and San Jose, Calif.

Mr. Langlois also announced that Mel Magnuson, formerly plant manager of the H. S. Crocker Co. plant, San Bruno, Calif., has joined Muirson as superintendent of the new Connecticut plant.

LNA Promotion to Reach 50,000 Offset Buyers

APPROXIMATELY 50,000 buyers and users of printing will be reached by the nationwide mail advertising campaign promoting offset lithography now being conducted by the Lithographers National Assn., New York. John M. Wolff, president of the Wolff Printing Co. Div., Western Printing & Lithographing Co., St. Louis, who is chairman of LNA's promotion committee, said that 60,000 names have been sent in to the association by lithographers, and after duplications have been eliminated, these will total about 50,000.

The mailings on the 1950 program will consist primarily of a preliminary announcement piece and a series of "advantage" pieces, each one of which will demonstrate and stress one of the several advantages of offset lithography. Under the slogan "Offset Offers More," the campaign also includes emblem stickers for use on company promotions, four-page letterheads, and a four-color filing folder

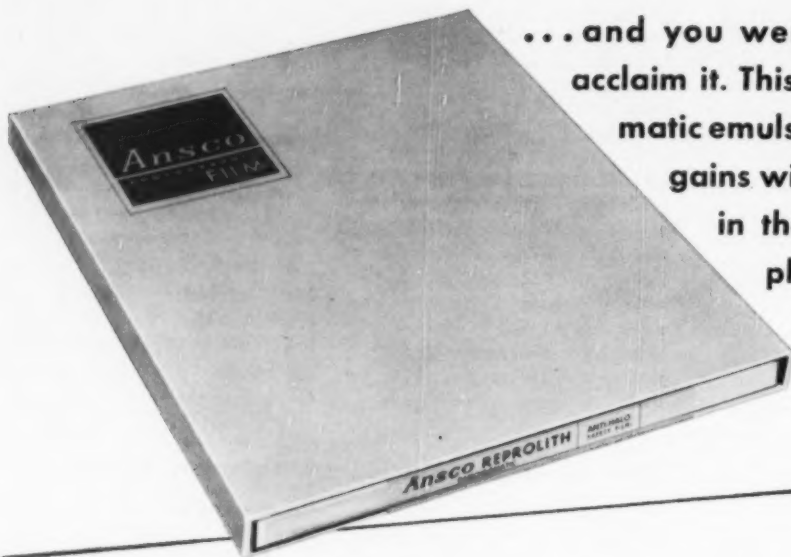
for collecting the series, all pieces of which will be uniform.

Randolph T. Ode, president of LNA and of the Providence Lithograph Co., Providence, R. I., explained that the program consists of three phases: the direct mail campaign, already described; an awards competition, to be held annually for the purpose of exhibiting and dramatizing fine offset work produced during the year; and, the publication, in full color, of a deluxe Offset Lithography Awards Book, reproducing the award-winning entries, and serving as a source of ideas and inspiration, with an additional technical book showing how to prepare copy to take advantage of the offset process.

Other members of the promotion committee are C. A. Nordberg, vice president of the Chicago Offset Printing Co.; and George C. Kindred, president, Kindred, MacLean & Co., Long Island City, N. Y.

Further information is available through the LNA offices, 420 Lexington Ave., New York 17, N. Y.

We brought back Ansco's superior **REPROLITH PAN FILM** for you



... and you were the first to acclaim it. This fine panchromatic emulsion once again gains wide acceptance in the field of graphic arts.

- **EXTREME CONTRAST**

Provides maximum contrast for both camera line and halftone negatives when making separations from multi-colored originals.

- **NO CHANGING OF DEVELOPERS**

Can be processed in conventional high-contrast developers, such as Reprodol. Time-consuming changes in processing solutions are not necessary.

- **BALANCED PANCHROMATIC SENSITIVITY**

Full panchromatic sensitization permits use of filters for ideal color separation from original copy.

- **PIN-POINT SHADOW DOTS**

Dots are crisp and opaque.

- **FINE RESOLVING POWER**

Ability to register fine line detail proved higher than average.

- **CLARITY IN WHITE AREAS**

Stains and discolorations eliminated.

- **STEEP GRADATION**

Provides maximum contrast.

Ansco, Binghamton, New York. A Division of General Aniline & Film Corporation. "From Research to Reality."

CONTACT YOUR **ANSCO** REPRESENTATIVE TODAY!

N. Y. Labor Pact Signed

Negotiations for a new labor contract between the Metropolitan Lithographers Assn., and the Amalgamated Lithographers of America, Local 1, New York, were concluded May 16 with the signing of a new agreement. Negotiations opened Jan. 31.

The new contract provides the following principal points:

Vacations:

The changes in the vacation clause provide for 1½ days vacation for each 5 weeks of work after Feb. 1, 1950. Vacation periods in excess of two weeks may be granted by pay in lieu of vacation.

Welfare Benefits effective April, 1950:

The contribution by the Employer has been increased by 50¢ per week to the sum of \$2.50 week except that for female Finishing Department Help the contribution is to be \$2.15 per week; the provision for pro rata payments for work less than a week continues as is. There is to be added to the Welfare Benefits a jointly agreed upon medical expense insurance coverage to be effective not later than June 1st, 1950 and costing not in excess of an average of 50¢ per week per employee.

Minimum Wage Scale:

There follows the new changes in the Minimum Wage Scale. In the event any increase to any employee is required by the new Minimum Wage Scale over wage rates presently being paid, the increase is to be paid in four equal amounts every five (5) months commencing April 1st, 1950.

Opaqueer—There is a new job classification of "Opaqueer" at the weekly rate of \$77.85; black and white opaqueer has been deleted.

A new job classification has been created which is called "Engravers, Tushers, Glass Letterers, Letterers (Pen and Brush Small)" with a weekly rate of \$93.04. Employees in this job classification may work interchangeably in all of the operations referred to in the job classification name. "Black and White Tusher" has been deleted.

Photographers—Color Separator, \$119.95; Black and White (Wet Plate), \$99.76; Black and White (Dry Plate), \$86.31; **Strippers**—Color, \$95.75; Black and White, \$90.35.

Platemakers—Photo-Composing Machine Operator, \$99.76; Platemakers and Vacuum Frame Operators, \$90.35.

Presses—Multiliths and Davidsons up to 14 in. incl. \$85.00.

Speed Rotary Press, 2 color, up to 64 in. incl., \$113.22.

Christiansen Varnishing Machine (52" by 76" 2 delivery) a new classification rate and complement. 1 Pressman, \$85.00 per week; 1 Operator, \$71.62 per week; 1 Tender, \$47.69 per week.

Complement of help on sheet feed presses—

1 Color up to 30" incl., 1 Pressman

1 Color 31" to 50" incl., 1 Pressman, 1 Operator

1 Color over 50", 1 Pressman, 1 Operator, 1 Tender

2 color up to 39" incl., 1 Pressman, 1 Operator

2 Color 40" and over, 1 Pressman, 1 Operator, 1 Tender

4 color, 2 Pressmen, 2 Operators

Web Presses—Web Press rates and Complements: (The first dimension is the width of cylinder, and the second dimension, length of cut-off.)

2 cylinders—25"x38"—1 pressman, \$100.00; 1 web operator, \$69.18.

2 cylinders—37"x48" (Scott 1 color perfecting)—1 pressman, \$110.00; 1 web operator, \$69.18; 1 tender, \$50.14.

2 cylinders—50"x38"—1 pressman, \$111.00; 1 web operator, \$75.00; 1 tender, \$50.14.

3 cylinders—12½"x18"—1 pressman, \$95.00; 1 web operator, \$69.00.

3 cylinders—19"x44"—1 pressman, \$100.00; 1 web operator, \$69.18.

4 cylinders—17½"x22½"—1 pressman, \$100.00; 1 web operator, \$69.18; 1 tender, \$47.69.

4 cylinders—21"x35½"—1 pressman, \$110; 1 web operator, \$69.00; 1 tender, \$50.14.

4 cylinders—39"x44" (generally runs as a wind press)—1 pressman, \$122.00; 2nd pressman, \$113.00; 1st web operator, \$75.00; 2nd web operator, \$70.00.

6 cylinder—15"x22"—1st pressman, \$110; 2nd pressman, \$100.00; 1 web operator, \$69; 1 tender, \$50.14.

Calendar Duster Press (new classification) \$70.26.

The contract runs until April 3, 1952 without any reopenings.



Alfred B. Rode Passes

Alfred B. Rode, 76, chairman of the board of Rode & Brand, long-established New York lithographing firm, died May 21 in a New York hospital following a heart ailment. Mr. Rode was a founder, and first president of the Lithographic Technical Foundation, and served as its president from 1924 to 1944. In 1878, his father founded the firm of Rode & Brand which recently became a division of Stecher-Traung Lithograph Corp. Mr. Rode also was a director of the Bowery Savings Bank and had been active in several clubs.

Survivors include his widow, Christine, a son, Alfred B., Jr., who is head of the Rode & Brand Div., and a daughter, Mrs. James P. Rice.

NAPL Gets More Exhibit Space

Additional space for exhibits has been obtained in the Shoreham Hotel, Washington, by the National Assn. of Photo-Lithographers, Walter E. Soderstrom, executive vice president, announced in May. The space previously contracted for had been sold out he said. Twenty-five additional booths will be included in the newly opened space which adjoins the convention area in the hotel. The NAPL annual convention and exhibit will be held October 19-25 at the Shoreham.

Mr. Soderstrom also said that room reservations at the Shoreham are "rather heavy" and should be made as soon as possible. Information on the convention is available from the NAPL offices, 317 W. 45 St., New York 19, but room reservations should be made directly with the hotel.

Personnel Changes at U.S.P. & L.

Personnel changes in the sales, manufacturing and purchasing departments of the United States Printing & Lithograph Company were announced May 10 by W. H. Walters, president.

J. S. Bond, vice president, has been placed in charge of all mid-western manufacturing activities, including the operation of the company's manufacturing plants at Cincinnati, Ohio, and St. Charles, Illinois.

All sales activities of the company in the Middle West, extending from Pittsburgh to Denver, have been combined under the direction of Gerald Murphy, manager of sales. Mr. Murphy's headquarters will be in Cincinnati.

Raymond P. Kane is now director of purchases, and will direct the activities of the central purchasing department of the company at Cincinnati. He formerly was purchasing agent in the company's eastern division at Mineola, N. Y.

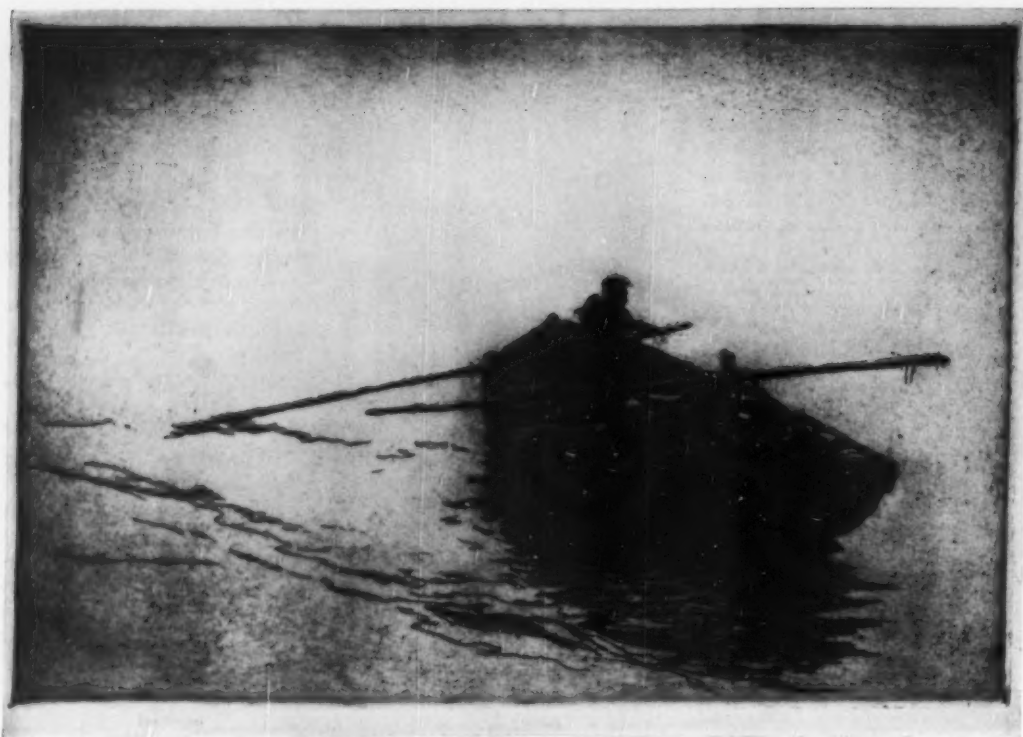
In addition to the Cincinnati and St. Charles plants, the United States Printing & Lithograph Company operates plants at Mineola; Baltimore; Erie, Pa.; and Redwood City, Calif. Executive Offices of the company are located at Cincinnati.

Ohioans Honor Rockwell

A testimonial dinner for E. P. Rockwell, executive secretary of the Graphic Arts Assn. of Cincinnati for the last 17 years, was held on May 6 in Hotel Sinton. He was presented with a combination television, radio and record set to the applause of the 140 guests present.

Presiding as toastmaster was Reid Vance of Columbus, secretary of the Ohio Printers Federation, and Mr. Rockwell's services were praised in brief talks by representatives of all the graphic arts groups in the Cincinnati area.

A. H. Pugh, president of the Graphic Arts Association, named the following arrangements committee: Alfred M. May, chairman; William H. Nau, William H. Kleesattel, Wilbert Rosenthal and John Hennegan.



EARLY MORNING

Early Morning, an etching by Sears Gallagher, won the Silver Medal of the Print-makers Society of California. He has been awarded prizes by the Art Institute of Chicago and other institutions and is represented in the collection of The Library of Congress and in a number of important museums throughout the country.

Mohawk Superfine Text, Cover and Bristol



*Mohawk
Paper Mills*

form a perfect background for the softness of offset lithography, the depth of gravure and the sharpness of letterpress. Made from high alpha fibres under rigid standards of quality, Mohawk Superfine is unmatched for appearance and performance. Mohawk Paper Mills.

Recht Heads Ink Firm



William Recht has been named president of Gaetjens, Berger & Wirth, Inc., printing and lithographic ink manufacturing firm of Brooklyn, N. Y. Charles F. Gaetjens, chairman of the board, announced May 27. Frederick Weldon continues as vice president and secretary.

Mr. Recht formerly was vice president and director of Sun Chemical Corp., New York, and held several executive posts in that company's various divisions, including the General Printing Ink Group, and the Rutherford Machinery Co. Div. He has been in the graphic arts field for 37 years. Since leaving Sun recently, Mr. Recht formed his own company at 50 Church St., New York to handle graphic arts products in the export trade, and his company will be continued under his direction.

Gaetjens, Berger & Wirth was formed 125 years ago in Germany, and opened offices in the U. S. 75 years ago.

Course in Color Matching

A course planned to help lithographic pressmen and supervisors improve their understanding of color matching is being carried on in New York by Superior Printing Ink Co., Inc., Morton E. Kapp, vice-president, announced. The decision to carry on a work of this kind was made at the request of many pressmen and shop owners, who found present schooling on this subject available only to a limited extent. The training program is being directed by Vincent Subenski of Superior, assisted by specialists from the company's laboratory and color matching department. Some 25 men meet once a week at the ink firm's plant, and the program is planned to run for six weeks during May and June.

After a brief introduction to the Munsell system of color classification, and the theory of optics, the class was

acquainted with the physical and chemical properties of pigments and pertinent materials used in the pressroom. The class then launched into a program of mixing inks to make a wide range of colors. Swatches of inks mixed and proofed by the class members are being made up into useful "Chromologs" or color swatch books, which the men will use later as guides in matching a given copy.

Masons Honor Soderstrom, Smith

Walter E. Soderstrom and J. B. Smith, both prominent in the lithographic industry, recently were named to high posts in the Masonic Order. Mr. Soderstrom, who is executive vice president of the National Assn. of Photo-Lithographers, was appointed chairman of the Board of General Activities, Grand Lodge, Free and Accepted Masons of New York State, and in addition, was named a member of the Public Relations Survey Committee which will determine Masonic policy in future public relations work. The Board of General Activities, which he heads, works closely with the 1,040 Masonic Lodges in the state in providing information and services. Mr. Soderstrom has held numerous offices in Brooklyn and in district and regional Masonic organizations.

J. B. Smith, who is secretary of the Photo Reproduction Corp., New York, and long a member of the NAPL board of directors, was named Grand Representative of the Grand Lodge of New York to the Grand Lodge of North Carolina. To mark the occasion of Mr. Smith's appointment, a dinner for the Grand Lodge officers and Mr. Smith, was given by Mr. Soderstrom, which was also attended by top state officials of the Order. Mr. Smith's duties will include representing Masons of New York State in all relations with the organization in North Carolina.

Form White Co. in N. Y.

John Jay White Litho Co., Inc. was incorporated recently in New York by Mr. White, and a shop has been opened at 305 East 47 St. Two presses, 17x22" and 22x34" have been installed.

Reischl Heads Supply Guild



Gus Reischl (above), of Ideal Roller & Mfg. Co., was elected president of the New York Printers Supply Salesmen's Guild May 11. He succeeds Norman Steed, Miehle Printing Press & Mfg. Co. Ted Broadston, Harris-Seybold Co., was elected vice president; Fred Pinkerton, Reinhold-Gould, Inc., treasurer; Dave Atchison, Roberts & Porter, Inc., financial secretary; Tom Walden, Jr., Walden Sons & Mott, recording secretary; and Meyer Lewis, A. F. Lewis & Co., historian. A. F. Oakes, Charles Francis Press, president of the N. Y. Employing Printers Assn. inducted the new officers.

N. Y. Assn. Re-elects Oakes

A. F. Oakes, Charles Francis Press, Inc., was re-elected president of the New York Employing Printers Assn. at its annual meeting May 22. The meeting marked the 85th year of the association, which was founded in 1865 as the Typothetae of the City of New York. Also re-elected were William H. Walling, Rogers-Kellogg-Stillson, vice president; Harold M. Davis, Davis, Delaney, Inc., treasurer; and Peter L. Forsman, C. H. Forsman Co., secretary. Frederick Haedrich, New York Label & Box Corp., was elected a vice president, and Don H. Taylor continues as executive vice president.

Fairchild Appoints Ellis

Harry Ellis, Jr., former sales executive of Amos Parrish & Co., New York, has been appointed sales manager of the Graphic Arts Div., Fairchild Camera and Instrument Co., Jamaica, N. Y., C. A. Harrison, vice president in charge of sales, announced.

OVER ONE HUNDRED YEARS OF ROLLER MAKING

SAM'L BINGHAM'S SON MFG. CO.



Manufacturers of

**RUBBER • NON-MELTABLE • FABRIC COVERED
ROTOGRAVURE • OFFSET
COMPOSITION • VARNISH-LACQUER • GRAINING**

ROLLERS

THE quality of the printing you produce depends on many factors you must take for granted—and one of them is the litho-offset rollers you use.

Over 100 years of roller-making experience, combined with modern methods of production and scientific control, enable SAM'L BINGHAM'S SON MFG. CO. to offer you rollers whose superior quality you can safely take for granted.

To be sure of getting the "right roller, right away" be sure to order Samson (Vulcanized Oil) and Litho-Print (Rubber) rollers, made by SAM'L BINGHAM'S SON MFG. CO.

16 Modern Factories Serving Printers in 31 States

FACTORIES

ATLANTA 2	DES MOINES 2
CHICAGO 5	DETROIT 10
CLEVELAND 14	HOUSTON 6
DALLAS 1	INDIANAPOLIS 2

SAM'L BINGHAM'S SON MFG. CO.
MANUFACTURERS OF
PRINTERS' ROLLERS
LITHO-OFFSET ROLLERS

FACTORIES

KALAMAZOO 12	OKLAHOMA CITY 6
KANSAS CITY 6	PITTSBURGH 3
MINNEAPOLIS 15	ST. LOUIS 2
NASHVILLE 3	SPRINGFIELD, O.

Pacific Coast Sales Representative: THE CALIFORNIA INK CO., INC.

NEW YORK
GRAPHIC ARTS
EXPOSITION
BOSTON
METROPOLITAN MUSEUM

E.B.Co. Eastern Mgr.



Peter A. Rice (above) has been appointed eastern district manager, Printing Machinery Div., Electric Boat Co., Harold W. Gegenheimer, division manager, announced late in May. He succeeds Mal Brewer who resigned recently. Mr. Rice has been with the division since its formation several years ago, having served as service manager and in the sales department. Prior to joining E. B. Co. he was with Brett Lithographing Co., Salzer & Co., and Industrial Lithographic Co., all in New York. He was an instructor in pressroom procedure at the New York Trade School. He is a member of the New York Litho Club and has addressed several litho clubs in the East and Midwest.

YLA Seeks Salesmen's Course

The possibilities of a graphic arts training course on "What the Lithographic Salesman Should Know" were thoroughly investigated by the Young Lithographers Association at the regular monthly meeting May 10 at the New York Advertising Club. With a panel consisting of representatives of lithographic management, sales departments and existing educational organizations, the question of education, gotten underway at the YLA's April meeting, was examined further.

Panel members were George Schlegel 3rd, president, Schlegel Lithographing Corp.; Wade E. Griswold, executive director, Lithographic Technical Foundation; Ralph D. Cole, president, Consolidated Lithographing Corp.; George C. Kindred, president, Kindred, MacLean & Co.; A. J. Fay, vice president in charge of sales, National Process Co.; Richard Shaffer, technical consultant, Schlegel Lithographing Corp., and in charge of the litho-

graphic courses at New York University; and George Mattson, training and personnel specialist, Lithographers National Association. The moderator was Al Soman, National Process Co.

The discussion centered around the various subjects which the proposed course should cover, and finally narrowed down to consideration of existing courses at N.Y.U. and at the New York Trade School. Either of these schools would cooperate in shaping a course to meet the needs of lithographic salesmen or other "white collar workers," it was said. Such a course was said to be planned by N.Y.U. for this fall.

No action was taken, but the members of the board are to discuss the problem further, Charles Roberts, YLA president, said.

This was the final meeting of the YLA until October.

New Incorporations

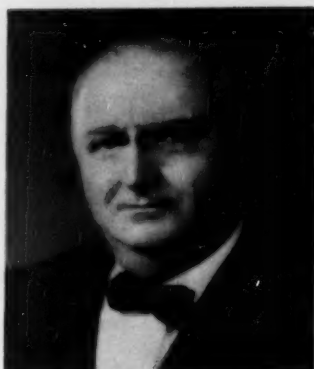
Recent incorporations filed in New York State include: Old Renwick Press, Inc., (Matthew Jacobsen, 475 Ocean Ave., Brooklyn, Rudolph Birnbaum, and Frances Cohen); John Jay White Litho Co., Inc., (John Jay White, 2921 21st Ave., Long Island City, Murray Kalik and Lawrence Kalik); Queens Platemaking Corp., (Jack Hecht, 1055 Jerome Ave., Bronx, Martin Kaltman, and Max Verebay); and Correct Printing Co., Inc. (Eugene P. Edwinn, Joshua S. Chinitz and Theodore Geffner, all of 51 Chambers St., New York).

Hopcraft Joins Newark Co.

Russell C. Hopcraft, for the past two years editor of *The American Printer*, on June 1st joined Colyer-Roux Printing Co., Newark, N. J., as production manager. The move, according to William C. Roux, president of the commercial letterpress and offset printing company, is one phase in a plant expansion program expected to reach completion next fall.

Expansion and modernization of the Colyer-Roux plant and offices has already involved the recent addition of 4000 square feet of floor space previously occupied by the Multicolor Co. at 116 Sussex Ave.

Heads Merck & Co.



James J. Kerrigan was elected president of Merck & Co., manufacturing chemists, May 24, succeeding George W. Merck who became chairman of the board. Henry W. Johnstone became senior vice president. Mr. Kerrigan joined the company in 1907 and became a vice president in 1927.

Academy Buys Bell Offset

The Bell Offset Co., 205 W. 19th St., New York, recently was merged with Academy Photo Offset, Inc. The announcement was made by Benjamin Lennon, president and Nathan M. Turkel, secretary-treasurer, of Academy. According to the announcement, the Bell name will be dropped. Academy has acquired the third floor, in addition to the premises the company now occupies at 15 E. 22nd St.

Rubin Heads MASA of N. Y.

Robert Rubin, Circulation Associates, was named president of the Mail Advertising Service Assn. of N. Y. in May. Tom Clark, Fisher-Stevens Service, is vice president; Mike Goodman, Comet Ray Letter Service, is secretary; and Robert Fidler, St. John Associates, is treasurer. Felix Tyroler continues as managing director.

Armitage Heads AIGA

Merle Armitage, art director, *Look* magazine, was elected president of the American Institute of Graphic Arts at its annual meeting and dinner May 18. Institute Medals were awarded to Ernest Elmo Calkins, advertising pioneer, and Alfred A. Knopf, book publisher.

Prominent Users of Strathmore Letterhead Papers: No. 88 of a Series



Commercial Credit Company was founded in Baltimore 38 years ago to make Operating Cash available to Manufacturers and Wholesalers through a Commercial Financing Plan.

COMMERCIAL CREDIT COMPANY, INC.
INCORPORATED IN MARYLAND
BALTIMORE, MARYLAND

a letterhead of QUALITY
gives credit to your business

Commercial Credit Company, while still operating from its headquarters in Baltimore, now has more than 300 offices throughout the United States and Canada. It has Capital and Surplus of over one hundred million dollars. Its wide variety of financing services are being used by businesses and individuals to a total of two billion dollars annually.

Naturally, such a company desires to convey a feeling of integrity in every phase of its business...and understanding the importance of the impression letterheads make upon their recipients, Commercial Credit chooses Strathmore paper to express this integrity.

Look at your own company letterhead objectively. Consider the design... the feel of the paper...the total impression. Does it say your firm is one of sound character and fine reputation? Is it a good representation of your company today? If not, have your letterhead supplier submit designs on Strathmore expressive bond and writing papers to discover how much quality and prestige a letterhead can carry.

Strathmore Letterhead Papers: Strathmore Parchment, Strathmore Script, Thistlemark Bond, Alexandra Brilliant, Bay Path Bond, Strathmore Writing, Strathmore Bond. Envelopes to match converted by the Old Colony Envelope Company, Westfield, Mass.

STRATHMORE MAKERS OF FINE PAPERS

Strathmore Paper Company, West Springfield, Massachusetts

Strathmore

ADVERTISEMENTS

in national magazines tell your customers about the letterheads of famous American companies on Strathmore papers. This makes it easier for you to sell these papers, which you know will produce quality results.

★ ★ ★

This series appears in:

TIME

NEWSWEEK

BUSINESS WEEK

ADVERTISING AGE

PRINTERS' INK

SALES MANAGEMENT

Natl. Carbon Appoints



The appointment of A. S. Johnson (right) as general manager of the National Carbon Div. of Union Carbide and Carbon Corp., New York, was announced May 25. Mr. Johnson joined the organization in 1928 and has served in various capacities including an assignment in China in 1933. In 1944, he became assistant to the vice president in charge of production with offices in Cleveland. In 1945 he was transferred to New York and in 1948 was made a vice president.

Morris Heads Navigators

Charles V. Morris, vice president of Reinhold-Gould, Inc., New York paper distributors, was elected president of The Navigators graphic arts research and educational group, at the recent annual meeting of the club. He succeeds Henry A. Singer. Also elected were Lawrence A. Berman, vice president; Duncan Sohns, secretary; and George A. Morris, treasurer. Executive committee members completing the cabinet are Leo Pine, William Ginsburg, Carl Wagner and Herbert Fair.

Mr. Morris has been active in The Navigators during the last five years, as publicity chairman, editor of "The Log," club monthly, and recently as vice president and program chairman. With honorary president Ernest Schmatolla, Mr. Morris organized the Ben Franklin Study Club, an adjunct of The Navigators' regular educational program.

Hold Buffalo Forum

A "Forum on Craftsmanship" featured the May 18th meeting of the Buffalo Club of Printing House Craftsmen in MacDoel's Restaurant, Buffalo. Theseven speakers included Homer J. Savage, covering offset.

Craftsmen Meet in Buffalo

Numerous representatives of the lithographic trades attended the Third District Conference of Printing House Craftsmen in Hotel Statler, Buffalo, May 12-13. Present at the annual conclave were members of Craftsmen's Clubs from Buffalo, Rochester, Hamilton, London, Montreal, Toronto and Ottawa.

Technical sessions and the annual dinner dance were highlights of the conference which also featured an address by A. E. Giegengack, president of the National Graphic Arts Expositions, and vice president of Lanston Monotype Machine Co. Albert J. Kolb of Buffalo was general chairman of the conference.

Miehle Appoints Two



Appointments of Malcolm O. Brewer (left) and Charles A. Harwood (right) to the sales force of the Miehle Printing Press and Mfg. Co., Chicago, have been announced by Carlton Mellick, Miehle vice president in charge of sales.

Mr. Brewer, who will work out of the New York office in the Sheet-Fed Rotary Letterpress Sales Division, formerly was sales manager of the Printing Machinery Div., Electric Boat Co. He is also a former vice president of the E. O. Vandercook Co.

Mr. Harwood has been identified with the Graphic Arts Industry since 1936, and is a former midwest manager of the Printing Machinery Div. of the Electric Boat Co. In his new position he will work in offset press sales out of Miehle's Chicago office.

Arrest Two for Counterfeiting

Several men were arrested by U. S. Secret Service agents and charged with lithographing counterfeit U. S. and Canadian money amounting to \$1,000,000, and also fake tickets to "South Pacific." New York stage show. Included in the arrests were Bernard T. Neuner, 30, said to be a lithographic camera man and artist of Buffalo, N. Y., and Matthew Zdolinski, 35, said to be owner of the Houston Press, Depew, N. Y., near Buffalo. Mr. Neuner was charged with making plates for \$10 and \$20 notes and Zdolinski was charged with running the plates in his shop.

Krueger Holds Open House

On May 15, the W. A. Krueger Co., held open house, to demonstrate its color lithography operations. The firm issued a special booklet "Lithographic Achievement," in connection with this program. The company is 16 years old.

Appointed IPI N. Y. Mgr.



John T. Hargrave (right) has been appointed New York branch manager of International Printing Ink Division of Interchemical Corp. to succeed W. N. Davies who recently became a vice president of IPI. Mr. Hargrave started work with IPI during his summer vacations while attending Yale. He joined the company on a regular basis in 1930 and his first job was as millhand and mixer in the Brooklyn Factory. He was later assigned to the Champlain Division and had become its General Sales Manager before returning to IPI in 1944. He had been serving in a sales capacity since then until his recent appointment.

Exposition Poster Winners

The three artists named as winners in the Poster Competition of the National Graphic Arts Expositions, Inc., have been awarded cash prizes amounting to \$850, the posters promoted the Sixth Educational Graphic Arts Exposition to be held in International Amphitheatre, Chicago, September 11 through 23. The winners announced are: First prize, \$500: Louis C. Dvorak, 3421 Oak Park Avenue, Berwyn, Illinois; Second prize, \$250: R. Thomas Schorer, 645 North Laramie Avenue, Chicago, Illinois; Third prize, \$100: Victor Trasoff, c/o Wm. D. McAdams, 25 West 43rd St., New York City. A total of 309 posters were entered.

Leland Adds Offset Press

Leland Printing Co., Chicago, has installed a Webendorfer 17x22 offset press in its recently expanded plant at 4321 N. Western Ave., and plans to add a second similar press before the end of the year. In constructing an extension to the building, William Reid, proprietor, said, he also provided facilities for a third, still larger offset press. Platemaking facilities also will be added later.

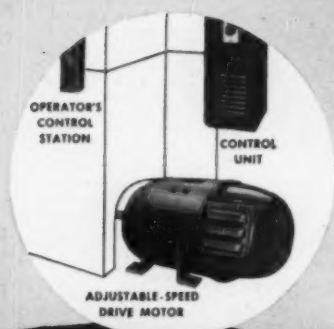
The company has operated letterpress equipment for 22 years and starts out with the one small press to "get the feel" of offset before going in more heavily, Mr. Reid said.

N. Y. Firm Bankrupt

Parish Press, Inc., 333 Hudson St., New York, recently was listed in voluntary bankruptcy proceedings.

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\$2.75 Rise in Chicago

The Chicago Lithographers Association and Local 4, A. L. A. reached final agreement May 25 on a new contract, effective as of May 1, for two years, in which all employees were granted a wage increase of \$2.75 a week, across the board. Beginning May 1, 1951, also, a third week's vacation with pay will be granted to all union members who have been in continuous service for five years with one employer.

All other original union demands involving cost factors were dropped during the negotiations. Employers, however, agreed to act for the union in deducting \$2.50 a week from employees' pay checks for the union's pension fund. Employers will make no contribution to this pension fund and have no part in its operation, so that it remains a union project.

Various paragraphs in the contract were rewritten to improve the position of the employers. Also agreed to was the formation of a joint union-employer committee charged to work out a solution to the acute manpower shortage in various classifications, which has been recognized as due to the lithographing industry's extensive expansion in Chicago, and the effect of the union's ratio of one apprentice to five journeymen.

Negotiation of the new contract began March 18 between the association's committee of 12, headed by Pres. Arthur F. Meding, and the union committee of 14, headed by their president, George Canary.

Milprint Starts New Plant

Construction was started in May on the big new plant to house all Milwaukee operations of Milprint, Inc., printing and packaging material firm. The factory and adjoining office building will be on a 22 acre tract between N. Richards and N. Holton Sts. The tract is large enough to permit triple expansion of the new buildings, according to William Heller, president.

The building permit indicated a construction cost of \$1,500,000. The one story brick factory building, 462

by 603 feet, will have 280,000 square feet of floor space, and the two story office, 100 by 260 feet, will have 52,000 square feet, for a total of 332,000 square feet. A North Western road spur track will provide rail service.

Mr. Heller said that the new facilities were expected to increase production considerably, and would be ready for occupancy about March 1, 1951.

Milprint now occupies its main building on W. Florida St., which it owns, and other leased buildings. It will give up all of these quarters when the new units are completed. The company has about 1,700 employees in its Milwaukee plants. It also has nine other plants across the country.

Ill. Assn. Offers Aid

Graphic Arts Association of Illinois has announced an arrangement with a Chicago firm of certified public accountants, J. W. North & Co., by which they will serve as consultants on accounting, cost accounting and tax problems for members of the Association. This service will replace that formerly provided by the Association through a department headed by the late C. A. Hale, who passed away last September.

Speaks on Specialties

Production problems for printed, embossed and die cut specialties was the subject of the May 16 meeting

of the Chicago Club of Printing House Craftsmen, with Basil M. Parsons, secretary and sales manager, Thompson-National Press Co., Franklin, Mass., as speaker. In his talk he covered advertising novelties and displays, car signs, book covers, menus, catalogs, greeting cards, also printing on plastic and wood, folding paper boxes, roll leaf stamping and embossing. A large exhibit of these products was arranged for examination before and after the meeting.

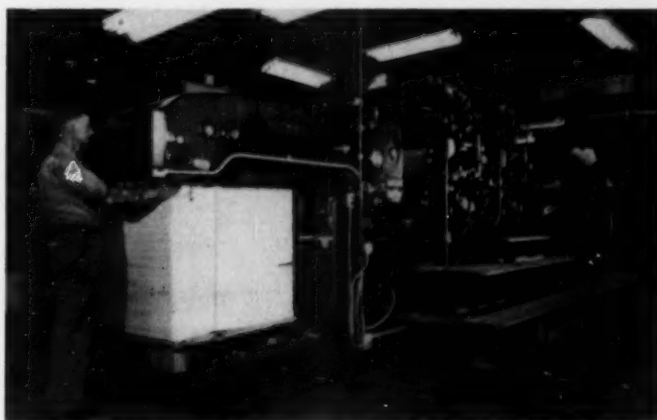
New members received by the Chicago Club at this meeting included among others, Harry Sidebotham, assistant foreman, John Dickenson Schneider; Newton C. Murray, bindery foreman, Regensteiner Corp.; Walter E. McCormick, president, Dupli-Graphic Processors, Inc., trade shop, and Kenneth F. Mairson, service engineer, E. P. Lawson Co.

Moore Gets Fotosetter

An Intertype Fotosetter recently was installed at the Buffalo plant of Moore Business Forms, Inc. It is being used for composition for offset reproduction.

Vulcan Changes Name

The name of the Vulcan Proofing Co. has been changed to Vulcan Rubber Products, Inc., the company announced June 7. Offices and plant are at 58 St. and First Avenue, Brooklyn, N. Y. and personnel remains the same.



Minn Firm Adds Press

Jensen Printing Co., Minneapolis, re-

cently installed this Harris 42x56" two-color offset press, following a 35x45" Harris two-color installed last winter.

R. R. Robertson in New Plant

R. R. Robertson Co. is now located in a new plant at 3067 Elston Ave., Chicago, where production got under way early in May. The new location provides about 20,000 square feet of floor area for manufacturing the company's line of process cameras, platemaking items, and other graphic arts equipment. There is also a general office and display area of 3,000 feet, which is air conditioned. Joseph Van Catta, general manager, and Earl Miller, sales manager, stated that visitors would be welcomed at the new plant following the move.

Produces Unusual Brochure

The Veritone Co., Chicago, recently produced by offset a brochure whose unusual design has attracted attention among printers, book makers and others in the graphic arts. Overall dimensions of the cover are 9x12 inches, while the 24 pages of text measure 9x9 inches. In the three inches of extra space at the top of the inside cover pages runs a facsimile picture of a 54-volume set of "Great Books of the Western World," being published by the University of Chicago and Encyclopedia Britannica, Inc.

Wm. Nicholl, prominent Chicago book designer, created the design of the brochure, and printing and binding was by Veritone.

St. Louis Craftsmen Elect

J. C. Farris, business relations manager of the Union Electric Co. of Missouri, addressed the St. Louis Craftsmen May 10, on the subject "Good Human Relations Pay Dividends."

Officers elected for 1950-51 by the St. Louis Craftsmen's Club are: Herman Friebel of F. M. Strickland Printing Co., president; J. Denter Rink of Cupples-Hesse Corp., 1st vice president; Bernard C. Meyer of A. R. Fleming Printing Co., 2nd vice president; Robert A. Heinrich of Shop Towel Service Co., secretary; Joseph A. Ottersbach of Buxton & Skinner Printing Co., treasurer; and Wyman L. Wills of Federated Type Metals, assistant secretary.

Ark. Firm Marks 50 Years

Currently celebrating 50 years of growth is Arkansas Printing & Lithographing Co., located at Tenth and Center Streets, Little Rock. The small print shop, set up by H. G. Pugh, a printer from Indiana, has developed into one of Arkansas' largest printers and stationery supply houses, employing some 130 persons. In 1900, as now, the backbone of the company's business was the printing of forms for Arkansas' banking houses. The company now, however, serves business concerns throughout the country. The celebration culminated on May 8th in an open house.

Kansas Co. to Expand

Hutch-Line, Inc., Hutchinson, Kan., has announced plans to erect a new building, with 10,000 square feet of floor area, as part of an expansion plan which is to take the company into color process lithography. Lee B. Hausam is president of the concern, which formerly was called Hutchinson Office Supply Co. It is now located at 408 N. Main St. where it has been for the last 20 years. The new plant will be in the city's east end.

Jeffries Speaks at St. Louis

Allerton H. Jeffries, president of Printing Industry of America, Inc., spoke at a dinner of the Associated Printers & Lithographers of St. Louis June 1. He is president of the Jeffries Banknote Company of Los Angeles.

Chicago Group Has 333 Members

The Graphic Arts Association of Illinois ended 1949 with 333 members, the report of secretary S. Frank Beatty revealed. Of this number 93 operated offset equipment. All incumbent officers were re-elected for the 1950 term. Paul C. Clovis, Twentieth Century Press, is president.

James A. Stafford Dies

James A. Stafford, 70, branch manager in St. Louis of Fuchs & Lang Mfg. Co. Div., Sun Chemical Corp., died May 11 following a brief illness. He had been with F & L for about 20 years. He is survived by his widow, Eva and a son, Harold.

Visit Joplin Plant

On April 20, the members of the Southwest chapter of the Missouri Society of Professional Engineers combined a dinner in the Keystone Hotel and a visit to the Joplin Printing Company plant, where new lithograph equipment was demonstrated.

St. Louis Firm Expands

Bruce Burgess Printing Co., St. Louis, recently added about 5000 square feet of floor space in an expansion program.



Students See Presses Built

A group of 45 students of offset recently visited the Chicago plant of the Miehle Printing Press & Mfg. Co. They represented the offset press class from the Chicago Franklin Union and the Survey and Intensive classes from the Chicago Lithographic Institute. The students enjoyed an evening of informa-

tive talks on design, construction and operation on Miehle offset presses, a plant tour, movies and dinner in the company cafeteria. New Miehle presses were demonstrated in operation.

Another group, numbering about 60, visited the Miehle plant during the recent convention of the Folding Paper Box Assn. in Chicago.

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ST. PAUL, MINN. Inter-City Paper Co.
SALT LAKE CITY, UTAH Carpenter Paper Co.
SAN ANTONIO, TEXAS Carpenter Paper Co.
SAN FRANCISCO, CALIF. Carpenter Paper Co.
SAVANNAH, GA. The Atlantic Paper Co.
SEATTLE, WASH. Carter, Rice and Co.
SPOKANE, WASH. Spokane Paper & Stationery Co.
SPRINGFIELD, ILL. Capital City Paper Co.
SYRACUSE, N. Y. Paper Service, Inc.
TALLAHASSEE, FLA. The Capital Paper Co.
TAMPA, FLA. The Tampa Paper Co.
TOLEDO, O. The Millcraft Paper Co.
TOPEKA, KANSAS Carpenter Paper Co.
TORONTO, CANADA Blake Paper Limited
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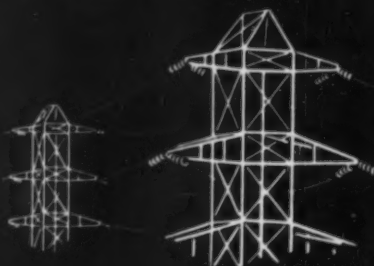
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	Wilcox-Walter-Furlong Paper Co.
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San Francisco, Calif.	Blake, Moffitt & Towne
San Jose, Calif.	Blake, Moffitt & Towne
Seattle, Wash.	Blake, Moffitt & Towne
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	Mill Brand Papers, Inc.
Stockton, Calif.	Blake, Moffitt & Towne
Tacoma, Wash.	Blake, Moffitt & Towne
Tampa, Fla.	Tampa Paper Co.
Toledo, Ohio	Paper Merchants, Inc.
Tucson, Ariz.	Blake, Moffitt & Towne
Washington, D. C.	The Mudge Paper Co.
Worcester, Mass.	C. A. Eady Paper Co.
	(Div. of Carter, Rice & Co. Corp.)

Form Utah Industry Ass'n.

The Printing Industry of Utah, was organized recently with offices in Salt Lake City. Active membership is limited to printers, lithographers, engravers, and typesetters, but it is anticipated that other trades will be admitted as associate members.

Oscar Whitehouse, former secretary of the Union Employers Section of PIA, assisted in the organization.

The following officers were elected: Lorin F. Wheelwright, president; Fred W. Schwendiman, first vice-president; C. W. Birkinshaw, second vice-president; and Victor C. McFarlane, secretary-treasurer. William D. Backman was selected as association manager.

The board of directors consists of the officers and: Hoyt W. Brewster, George L. Crowther, Jean M. DeBouzek, Harold V. Ford, Harold C. Gerber, Walter W. Hiller, Charles E. Jaffa, and Harry H. Rose.

Calif. Plate Shop Moves

Lithographers Plate Service has moved from 14423 Sylvan St., Van Nuys, Calif., to 6630 Lankershim Blvd., according to Cyril Stanley, proprietor.

Coast Firm Adds Press

Installation of a new 22x34 E.B.Co. press has been completed at 300 Broadway, San Francisco, for Charles Wood & Associates.

Miles Litho Moves

Miles Litho, Carl P. Clement owner, has moved to 217 W. Colorado, Glendale, Calif.

Newspaper Has Offset Insert

The Chico, Calif. *Enterprise-Record*, recently issued several pages in color as part of a special edition. The color section was lithographed by Hurst & Yount, printers and lithographers, that city.

Moore to Expand in Oregon

Moore Business Forms, offset firm specializing in business forms, plans to expand its Salem, Oregon plant through the addition of about \$100,000 worth of new equipment, Claude Miller, manager at Salem, announced recently. The plant now employs

about 30 persons and this number is expected to be doubled.

New L. A. Litho Company

Organization of the Globe Lithograph Co., Inc., at 318 E. 4th St., Los Angeles, has been completed, according to Marshall Immell, a principal in the firm. The company now operates a 22x29 and a 14x20—both Webendorfers — and two larger presses are to be acquired. One of these will be a single color, and the other a two-color press. Platemaking and art department equipment also will be added.

Calif. Ink Plans Building

A new building on a site on Alaska Way in Seattle, is planned by The California Ink Co., C. M. Reed, president, announced in May. Construction was to begin during May or early June on the building, which will provide the company with three times the floor space which it now occupies at 2627 Western Ave., Seattle. The new northwest headquarters will carry a complete stock of inks, rollers, and other supplies, and will serve Washington, Idaho, Montana, British Columbia and Alaska.

Seattle Industry Elects

Roy G. Rosenthal, University Printing Co., recently was elected president of the Printing Industry of Seattle. Harry Strang, Deers Press, is vice president; and Perry M. Acker, American Printing & Lithographing Co., secretary-treasurer.

U.S.P. & L. Opens L. A. Office

An office at 315 W. Ninth St., Los Angeles, was opened recently by United States Printing and Lithograph Co., Cincinnati. Robert Denock is in charge.

Glendale Adds Press

Pioneer Printing Co., Inc., has added a 14x20 Webendorfer and a gang stitcher to its plant at Glendale, Calif.

Oakland Co. Doubles Space

Jack Green, proprietor of Lithograph Reproductions, has moved the

company into its own building at 4120 Grove St., Oakland, Calif., more than doubling former space. The new building has 6,000 square feet of space and culminates an expansion plan which has taken place over the last year. New equipment will include a camera, whirler and other platemaking equipment. Green, who operated a letterpress business, The Jack H. Green Printing Co., from 1936 to 1946, switched to offset in June, 1947.

L. A. Co. Expands Operation

William Allen, owner of the Studio Lithograph Co., Los Angeles is expanding his company with the addition of new quarters at 1738 Hyperion. Associated with Mr. Allen is Leonard Steinmetz, formerly of New York.

A 14x20 Webendorfer and a 20x24 camera will be ordered, with a larger press contemplated in the near future. Trade platemaking operations also will be expanded.

Greeting Publishers Chairmen



R. R. Heywood, Sr., (right) president of R. R. Heywood Co., New York, and one of the founders of The National Association of Greeting Card Publishers is presented with a silver engraved gavel at the annual founder luncheon of the association held at The Plaza, New York, May 4. Mr. Heywood is presenting a wooden "working gavel" to the incoming chairman, Wrighton W. Christopher (left) vice-president and general manager of Rust Craft Publishers of Boston. Mr. Heywood was chairman of the association's executive committee in 1949 and was also a member of the original executive committee which founded the organization in 1941.

The National Association of Greeting Card Publishers has a membership of 60 firms located throughout the United States. These publishers are said to produce more than 80 percent of the 3,000,000,000 greeting cards that are mailed annually.



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Heads Eureka Specialty Adv.

Raymond G. Spillbury, Jr. (right), former advertising manager of Crocker-Wheeler Mfg. Co., recently was named director of advertising for Eureka Specialty Printing Company, Scranton, Pa., makers of gummed stationery items. He is director and former official of the Industrial Marketers of New Jersey and is active in the American Marketing Assn.



Scott Heads Phila. Assn.

J. Wallace Scott, Jr., Allen, Lane & Scott, Inc., was elected president of Printing Industries of Philadelphia, Inc., at the 62nd annual meeting of the association held at the Llanerch Country Club, May 15. Mr. Scott succeeds John S. Williams, Williams & Marcus Co., who served two terms as president of the association.

Other officers elected are: vice-presidents—Ralph V. DeKalb, Alfred J. Jordan, Inc., and Stanley E. Haigh, Lanston Montype Machine Co.; treasurer, C. A. Schaubel, Dunlap Printing Co.; and recording secretary, George D. Beck, Beck Engraving Co. The executive secretary is Harold F. Fiedler.

Almost 500 members were in attendance at the annual meeting at which time the annual golf tournament took place. George R. Phelps, The J. L. N. Smythe Paper Co., won the golf trophy with a low net of 70.

125 at Phila. Demonstration

Over 125 lithographic pressmen, cameramen and platemakers met April 27 to see a demonstration of the new Aller lithographic bi-metallic plate at Printing Institute, Philadelphia. Ray Miller, sales manager for Frederick H. Levey Co., conducted the demonstration and answered questions.

Phila. Industries Offices Move

Wednesday, May 31 was scheduled as moving day for Printing Industries of Philadelphia, which will occupy new headquarters on the second and third floors of the Real Estate Board Building, 1234 Locust Street. For nearly 25 years, the association has been located in the Public Ledger Building.

The new space, although somewhat smaller, will provide larger meeting rooms and the opportunity to develop permanent display areas for the industry.

Buys Honold in Phila.

The Drake Press, 333 S. Broad St., Philadelphia, announced in May that it had purchased the Honold Lithograph Co., that city, and will operate the plant to offer customers complete letterpress and offset facilities. The Honold Company has been handling work under Drake's direction for nearly a year, the announcement stated. The announcement was made through an 8½ x 11" French fold brochure lithographed in two colors.

Macbeth in New Factory

Macbeth Arc Lamp Co., planned to occupy a new factory and office building late in May at 141 Berkeley St., Germantown, Philadelphia, Irredell Eachus, president, announced. The factory is all on ground level, while the forward end of the building is three stories high and will house the offices, laboratory and shipping department. The new location provides a more efficient operation. The company was founded in 1911.

Phila. Firm Adds Photocomposer

Lithographic Service Co., Philadelphia, has expanded its facilities with the installation of a Lanston Step and Repeat Machine, it has been announced.

Study Transparent Proofs

A study to determine the best materials and methods for obtaining type proofs on transparent materials for use in lithographic or other types of reproduction is being launched by the International Typographic Composition Assn., Frank M. Sherman, executive secretary, has announced. Very little information has been compiled on the subject, Mr. Sherman said, and the association will conduct a research study to obtain useful data. The association is located at 1015 Chestnut St., Philadelphia 7, Pa.

Research Council to Meet

Plans have been made for the June meeting of the Research & Engineering Council to be held in Chicago, Illinois on Thursday, June 22, 1950. On the following day the council will visit the Institute of Paper Chemistry at Appleton, Wisconsin, and the research laboratories of the Kimberly-Clark Corporation at Neenah, Wisconsin. Council offices are at 719 15th St., N. W., Washington 5, D. C.

O'Connor R-C-S Director

Eric O'Connor has been elected to the board of directors of Rolph-Clark-Stone Limited of Canada, it was announced by Frank Stone, president. Mr. O'Connor is vice president and general manager of Benallack Press Limited, Montreal, which was recently acquired by Rolph-Clark-Stone.



McCandlish Award Winner

Shown here around the first prize winning poster design in the annual McCandlish Awards, are the judges, L. to R. Edw. Kyriz, Liggett & Myers Tobacco Co.; Mark Seelen, Outdoor Advertising, Inc.; Herbert Noxon, McCann-Erickson, Inc.; Charles T. Coiner, N. W. Ayer & Son; and Jos. Campanaro, Outdoor Advertising, Inc. A. R. McCandlish,

president of McCandlish Lithograph Corp., Philadelphia, sponsor of the competition, announced that the winner of \$1000 first prize was Robert Pettinato of Philadelphia who submitted the sketch shown. Second award, \$250, went to Wesley J. Loveman, New York; and third prize, \$100, to George Sulpizio, Philadelphia. Honorable mention awards went to 72 other entries.

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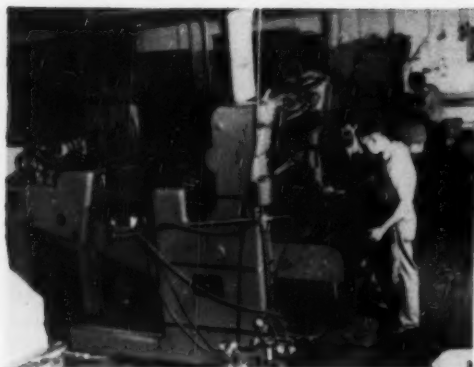
Their purity goes far beyond the accepted standards of "pure". Result: you get more definition and dependability in your plates—fewer make-overs—important savings in time and trouble—and a reputation for top-quality work.

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Manufacturers of Medicinal, Photographic, Analytical and Industrial Fine Chemicals



Boston Co. Adds Presses

Superior Printers, Inc., Boston, recently installed two E.B.Co. offset presses. Shown here examining the new machines are William F. Sullivan, offset foreman, with pressmen Francis J. Durney and Alphonse Chiulli. The company specializes in the planning and production of public relations and advertising material.

R. R. Williamson Dies

R. R. Williamson, 70, a director of the Williamson Offset Co., Boston, and an official of several other graphic arts firms, died May 27 in the Norwood, Mass., hospital. He also was president of the T. O. Metcalf Co., president of the Graphic Arts Building, Inc., and a director of the Barta Griffin Co., all of Boston. Mr. Williamson also was a director of several banks, and was active in church and fraternal organizations.

Conn. Craftsmen Visit E.B.Co.

Members of the Connecticut Valley Craftsmen's Club spent May 13 at Groton, Conn., as guests of the Printing Machinery Div., Electric Boat Co. They toured the plant, seeing the company's 22x34" offset presses under construction, and also saw where navy submarines are built. Lunch, movies, and a tour through a commissioned submarine filled out the day.

To McLaurin-Jones Board

Lee Turley, vice president in charge of sales of McLaurin-Jones Co., Brookfield, Mass., recently was elected to the company's board of directors. The company manufactures gummed, coated and specialty papers.

Adopts "Share-Production" Plan

The Rucker Share of Production Plan, an incentive plan for hourly paid employees, recently was installed by Mecor, Ltd., Montreal lithographic and photo-engraving plant. This is said to be the first trial of the plan in a graphic arts plant. It allows

employees to earn more pay for additional production.

Winthrop Buys Boston Co.

Winthrop Printing & Offset Co., Boston, during May purchased the Boston Bank Note Co., including the building in South Boston, equipment and "good will." Both plants will operate under the Winthrop name. The Boston Bank Note Co., was founded in 1887.

Karslake Forbes VP

Frank G. Karslake, Chicago branch manager, has been elected a vice-president of the Forbes Lithograph Mfg. Co., Boston, the company announced.

Gleason Heads N. Y. Craftsmen

William P. Gleason, Colonial Press, was elected president of the New York Club of Printing House Craftsmen, at the annual meeting in May, succeeding Henry Schneider to the office. Other officers are James L. Goggins, Publishers Printing Co., first vice president; Edward C. Sanna, Arco Manifold Co., second vice president; Charles E. Smith, Brooklyn Eagle Press, secretary; and Carl Westhelle, Morris & Walsh Typesetting Co., treasurer. Russell J. Hogan, Wilson H. Lee Co., New Haven, Conn., president of the International Assn. of Printing House Craftsmen, handled the induction of officers. A television set was presented to retiring president Schneider, by the membership. A feature of the program was a showing of the Miller

Printing Machinery Co. motion picture "Another Man's Business."

The annual outing of the craftsmen was to held June 17 at Blasberg's Grove, Hawthorne, N. J.

Daniel Heads Box Assn.

Albert S. Daniel of the W. C. Ritchie Co., Chicago, was re-elected president of the National Paper Box Mfrs. Assn. at its 32nd annual convention in Chicago, May 14-17. Also re-elected were Douglas T. Neale, E. J. Schoettle Co., Philadelphia, as treasurer, while Gustav L. Nordstrom, Philadelphia, continues as executive secretary. Sales promotion and technical production problems were the principal topics discussed by leaders in the folding paper box industry, during the sessions at the Drake Hotel, which were attended by 360 manufacturers and suppliers.

Announce IPI Essay Winners

Forty prize winners in the 14th Annual IPI Essay Contest were announced in April by Fred J. Hartman, educational director of the National Graphic Arts Education Association which sponsors this annual competition in cooperation with International Printing Ink. This year over 15,000 students from 332 schools in 43 states, Canada and Hawaii competed for the 34 cash prizes, five IPI Match-Boxes and one combination award of cash and a handsome silver cup.

First prize of \$500 was won by Marilyn Porter, 17, of Edison High School, Minneapolis.

Christensen Inventor Dies

Frank R. Belluche, 61, vice president of the Christensen Machine Co., and an inventor of many graphic arts machines, died May 20 at his summer residence in Wisconsin following a heart ailment. He was in charge of the company engineering and development activities. A native of Boston, he went to Racine in 1928 to develop the Christensen bronzer, and in the 22 years he had been with the firm he had developed many of its bronzing, varnishing, feeding and stitching devices.

Cincinnati Co. 120 Years Old

One of the oldest graphic arts firms in this country is quietly observing its 120th anniversary this year. It is the A. H. Pugh Printing Co., Cincinnati, which recently added a Multilith 11x14" offset duplicating press as a first step in a contemplated expansion further into offset.

But things were not always so peaceful in the busy Pugh shop. Back in 1836, a mob completely demolished the shop, scattered the type, tore the press apart and threw the pieces into the Ohio River. It came about because Achilles Pugh, a fighting Quaker, was printing a paper called the *Philanthropist* for the Ohio Anti-Slavery Society.

The riot forced Pugh to leave the city, and for a time he published the paper in nearby Springboro, Ohio, bringing copies down on a canal boat for Cincinnati readers.

But some weeks later, the feeling died down, and Pugh resumed his printing operations in Cincinnati, where the business has continued to expand through the years under the successive ownership of his son, Achilles H. Pugh II, and his grandson, Achilles H. Pugh III, who, with the latter's son, William W. Pugh, now operates the large plant in the Pugh Building at 400 Pike Street. The firm has 157 employees.

One of the interesting exhibits in the Pugh collection of printing history is a copy of the original "Plan of Apprenticeships" which was adopted by the Cincinnati Typographical Union on February 15, 1851. At that time, the Typographical Union was the organization of employing printers, and the employee's organization was called "The Franklin Society," a curious reversal of modern nomenclature.

The plan set forth in detail the terms under which apprentices were to be employed in "Union" shops, with the employers agreeing "to pay all boys a uniform rate of wages" not exceeding \$2.50 per week during the first year, with raises of 50 cents per week each year thereafter until the "boy" had served his four years of apprenticeship. Achilles Pugh's name

headed the list of committeemen who drew up the plan.

For many years, the Pugh Company has specialized in four-color process printing of catalogs and display advertising. It also is a supplier to the railroads and bus lines in this country, Canada and Mexico. An increasing business in office forms led to installation of the offset press, and William Pugh said it is anticipated additional offset equipment may be installed in the near future.

The Pugh Building contains 440,000 square feet of floor space and is occupied by a number of other offset and printing firms, including the Stevenson Photo Color Separation Co., Kelsey Coupon Co., Seyler-Nau Co., Advertisers Engraving Co. and Louis A. Braverman.

To Cincinnati Craftsmen Board

Members of the Cincinnati Club of Printing House Craftsmen elected five new governors at a dinner meeting in Hotel Alms on May 11. They are: Elmore Price, Ander Chemical Co.; George H. Kreyling, International Printing Ink Corp.; William E. Wagner, Nessler and Wagner Co.; Louis A. Croplis, American Type Founders Sales Corp., and Herman Vordenberg, Graphic Arts High School. New officers were to be elected at a meeting of the board on May 23.

"Paper Night" was observed at the meeting, with Roy Dieterlen, sales manager of the Diem and Wing Paper Co., serving as moderator.

The annual picnic of the club was to be held June 8 at the Seventh Ward Fishing Club, president Robert Wolf announced.

Geo. L. Bunker, Cincinnati, Dies

George L. Bunker, superintendent of the printing department of the Andrew Jergens Co., Cincinnati, died at his home May 20. Bunker, 61 years old, failed to recover from a stroke he suffered two days previously.

Cincinnati Assn. Moves

The Graphic Arts Assn. of Cincinnati announced a new address on May 26. It is 1401 Enquirer Building.

Changes at Dayton Rubber

The Dayton Rubber Company, Dayton, Ohio, through its vice president and general sales manager, Carl W. Priesing, announced the following appointments of regional managers for its products, including printing rollers: E. K. Lofton, formerly sales manager of the Railway Division, will serve as regional manager of the Dayton Region; J. W. Torrant, formerly district manager at Boston, will serve as regional manager of Chicago Region; T. J. Ehrhart, formerly district manager, Dallas, Texas, will serve as regional manager of the Dallas Region; A. L. Van Der Kar, formerly associated with the Ansco Division, will serve as regional manager of the New York Region; and M. E. Runner, formerly district manager in Los Angeles, will serve as regional manager of the Los Angeles region.

Cincinnati Firm in Tenth Year

The Finn-Jaske Co., Cincinnati, recently celebrated its tenth anniversary in business. Started by two partners, John W. Finn and Joseph C. Jaske, as a small job printing plant in 1940, the company has become one of the most unusual businesses in the Cincinnati area.

Although commercial printing is still the major interest of the firm, the Finn-Jaske Co. is reported to be the largest manufacturer of greeting card price tickets in the nation. Its metal shop specializes in name plates used on radio microphones. Other specialties include decalcomanias, metal name plates, advertising signs and race horse breeding records, distributed by the firm's several hundred salesmen throughout the nation.

Sun Buys Winkler in Cincinnati

The Sun Litho-Plate Co., Cincinnati, has expanded its facilities by purchasing equipment of the Winkler Offset Color Service, same city, Sig J. Isidor, vice president and treasurer of Sun Litho-Plate, has announced. The Sun Company will operate both plants. The Winkler plant was acquired from William Winkler, president and former owner of the firm.



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BIRMINGHAM, ALA.	Sloan Paper Company
BOISE, IDAHO	Zellerbach Paper Company
BOSTON, MASS.	Scotts & Bennett Company
BUFFALO, N. Y.	The Alling & Cory Company
CHAMPAIGN, ILL.	Crescent Paper Company
CHARLOTTE, N. C.	Caskie Paper Company, Inc.
CHATTANOOGA, TENN.	Southern Paper Company
CHICAGO, ILL.	Chicago Paper Company
CINCINNATI, OHIO	McIntosh Paper Company
CLEVELAND, OHIO	The Diem & Wing Paper Co.
COLUMBUS, OHIO	The Petrequin Paper Company
COLUMBUS, OHIO	The Alling & Cory Company
CINCINNATI, OHIO	The Cincinnati Card & Paper Co.
CINCINNATI, OHIO	C. M. Rice Paper Company
DALLAS, TEXAS	Olmed-Kirk Company
DAYTON, OHIO	Hull Paper Company
DENVER, COLO.	Carpenter Paper Co.
DES MOINES, IOWA	Western Newspaper Union
DETROIT, MICH.	Newhouse Paper Company
DUBUQUE, IOWA	Seaman-Pattick Paper Company
EUGENE, ORE.	Newhouse Paper Company
FARGO, N. D.	Zellerbach Paper Company
FORT WORTH, TEXAS	The John Leslie Paper Company
FRESNO, CAL.	Olmed-Kirk Company
GRAND RAPIDS, MICH.	Zellerbach Paper Company
GRAND RAPIDS, MICH.	Quondy-Kain Paper Company
GREAT FALLS, MONT.	The John Leslie Paper Company
HARRISBURG, PA.	The Alling & Cory Company
HARTFORD, CONN.	Henry Lindemeyer & Sons
HICKORY, TEXAS	Scotts & Bennett Company
INDIANAPOLIS, IND.	L. S. Bosworth Company
JACKSON, MISS.	Crescent Paper Company
JACKSONVILLE, FLA.	Townsend Paper Company
KANSAS CITY, MO.	Virginia Paper Company, Inc.
KNOXVILLE, TENN.	Midwestern Paper Company
LANSING, MICH.	Southern Paper Company
LETTER ROCK, ARK.	The Weisinger Paper Company
LONG BEACH, CAL.	Western Newspaper Union
LOS ANGELES, CAL.	Arkansas Paper Company
LOUISVILLE, KY.	Zellerbach Paper Company
Lynchburg, VA.	Zellerbach Paper Company
MEMPHIS, TENN.	Miller Paper Company
MILWAUKEE, WIS.	Caskie Paper Company, Inc.
MINNEAPOLIS, MINN.	Woodson & Bozeman, Inc.
MINNEAPOLIS, MINN.	Nackie Paper Company
MOBILE, ILL.	The John Leslie Paper Company
NAMVILLE, TENN.	Newhouse Paper Company
NEWARK, N. J.	Clements Paper Company
NEW HAVEN, CONN.	Henry Lindemeyer & Sons
NEW ORLEANS, LA.	Henry Lindemeyer & Sons
NEW ORLEANS, LA.	Alco Paper Company, Inc.
NEW ORLEANS, LA.	Henry Lindemeyer & Sons
NEW YORK CITY	Lathrop Paper Company, Inc.
NEW YORK CITY	The Alling & Cory Company
NEW YORK CITY	J. E. Linde Paper Company
NEW YORK CITY	The Canfield Paper Company
NEW YORK CITY	Marquardt & Company, Inc.
NEW YORK CITY	Schlomer Paper Corporation
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Western Newspaper Union
NEW YORK CITY	Field Paper Company
NEW YORK CITY	D. L. Ward Company
NEW YORK CITY	The J. L. N. Smith Company
NEW YORK CITY	Schuykill Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	The Alling & Cory Company
NEW YORK CITY	C. M. Rice Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	B. W. Wilson Paper Company
NEW YORK CITY	Virginia Paper Company, Inc.
NEW YORK CITY	The Alling & Cory Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Beacon Paper Company
NEW YORK CITY	Tobey Fine Papers, Inc.
NEW YORK CITY	The John Leslie Paper Company
NEW YORK CITY	Newhouse Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Shiner-Sien Paper Company, Inc.
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Louisiana Paper Company, Ltd.
NEW YORK CITY	The John Leslie Paper Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	The Paper House of New England
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	The Alling & Cory Company
NEW YORK CITY	The Commerce Paper Company
NEW YORK CITY	Midwestern Paper Company
NEW YORK CITY	Henry Lindemeyer & Sons
NEW YORK CITY	Tony Paper Corporation
NEW YORK CITY	Tulsa Paper Company
NEW YORK CITY	Olmed-Kirk Company
NEW YORK CITY	Zellerbach Paper Company
NEW YORK CITY	Stanford Paper Company
NEW YORK CITY	Western Newspaper Union
NEW YORK CITY	Zellerbach Paper Company

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 New York City (Export) National Paper & Type Co.
 Agents or Branches in 40 cities in Latin America and West Indies.
 New York City (Export) Muller and Roche, Inc.
 Agents or Branches in 20 countries in Latin America and West Indies.
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Photograph by A. Devaney, Inc., New York

WARREN'S Lithographic Papers

Cumberland Offset • Offset Enamel • Overprint Label C1S

WARREN'S Offset Enamel and Warren's Overprint Label are new double coated papers produced by a new method. Two separate coatings are applied to produce Warren's Overprint Label. Warren's Offset Enamel receives two separate coatings on each side. The double coat improves the printability and the uniformity of the papers, and thereby raises the potential of lithographic reproduction. Warren's Overprint Label is pre-conditioned by an exclusive process.

Warren's Cumberland Offset is pre-conditioned by the same exclusive process which gives paper greater stability and permits it to be printed directly from the case or skid without hanging. Warren's Cumberland Offset is available in Wove and five special finishes.

Write for free booklet—"How Will It Print by Offset?"

S. D. WARREN COMPANY • BOSTON 1, MASS.

[BETTER PAPER  BETTER PRINTING]
 Printing Papers

Haynes Litho Expanding

Haynes Lithograph Co., Silver Spring, Md., near Washington, D. C., has a building extension under construction, and is adding presses and other equipment. The new construction, a single story building, 40x200 feet is to be completed by September 1, and will add about one-third more area to the plant. A two-color Harris 42x58" press has just been installed, and a four-color Webendorfer web press is to be added in September. This press will take a web 42" wide, and will print various combinations of four colors on one or both sides of the web.

Part of the new addition will be leased to *Young America* publications for editorial and production offices. Production of some of the company's publications by offset lithography will be handled on the web press. The publications, now produced by roto-gravure, will be switched to offset production for better color and better legibility through improved type reproduction, a *Young America* spokesman told *Modern Lithography*. The publications will be done in two or three colors, and combinations, and two new publications are being planned in addition to the present ones. They are distributed through schools.

Ernest Attfield Dies

Ernest W. Attfield, 62 years of age, of the Washington Planograph Co., Washington, D. C., died May 16. He formerly was with Kirby Lithograph Co. for about 13 years, and had been active in the Washington Litho Club, having served as vice president. He also was a charter member.

Reject Union in Baltimore Shop

Lithographic employees of National Color Printing Co., Baltimore, recently voted 13-10 to have no union representation in an election held by the National Labor Relations Board.

Capital Men to Honor Pistel

William H. Pistel, civilian chief of the reproduction section of Army Map Service, Washington, D. C., is to be honored with a testimonial dinner being arranged by friends in the government and commercial litho-

graphic trades. The dinner is to be July 14 at the Shoreham Hotel.

Mr. Pistel, who is retiring June 30, has had 30 years of service, starting out in the old Engineer Reproduction Plant, which became the AMS during World War II.

Louis A. Tamb, Fuchs & Lang Div., is in charge of arrangements among commercial lithographers and supply trades, and Frank Federline, at AMS, is taking care of details and reservations among government agencies.

N. Y. Fund Heads Confer



David W. Brumbaugh, (left) vice president of Time, Inc., the chairman for the Publishing, Entertainment and Professions Section of the Greater N. Y. Fund 1950 Appeal, and A. J. Math, president of Sinclair & Valentine Co., who will conduct the solicitation among graphic arts firms in Manhattan, examine a Fund booklet which explains the campaign now getting under way.

Lerner Talks at School

Frank Lerner, photographer who made the color photographs of the Sistine Chapel in Rome for *Life* recently, addressed the "Photography for Executives" class at the Lithographic Dept. of the New York Trade School May 12. His talk supplemented the discussions on color by Herbert P. Paschel, graphic arts consultant, who is conducting the course.

Newark Firm Adds Space

Globe Printers' Supply, Inc., has announced completion of a remodeling program and the acquisition of 6,500 square feet of additional space at their quarters, 409 Washington St., Newark, N. J.

Lithographers Show Lines

The Chicago Rotary Club's Mid-century Business Exposition last month offered three Chicago litho companies opportunity to show some of their work.

Denoyer-Geppert Co., publishers of maps, charts, globes and other scientific and educational materials, made the first public showing of a new series of ten anatomical charts for the medical profession, which, it is claimed, are the first complete series of purely American origin.

Although the company operates its own offset presses, this job was produced by Inland Lithograph Printing Co., with plates made by American Litho Arts Co. Reproduction in seven colors was from original oil paintings on canvas on which the artist, Pauline Larivière, a noted medical illustrator, spent three years. On the 44 x 72 inch sheets, the human figures are practically life size, and plates had to be prepared covering a quarter section of the copy at a time.

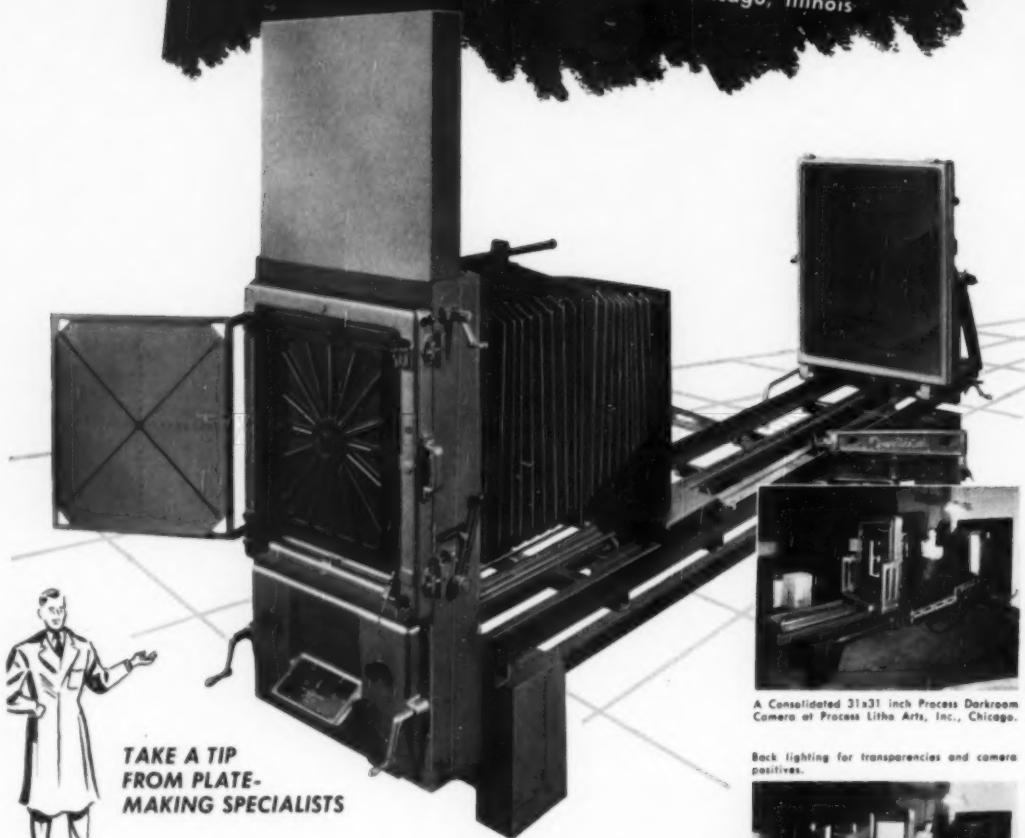
J. B. Carroll Co., producers of plastic advertising specialties, showed a colorful selection from its lines of calendar cards, signs, calculators, color guides, rulers, tape measures and other items, printed chiefly by offset. Also shown were laminated offset reproductions of magazine ads fitted with easel back for counter point of purchase displays. The company was founded in 1897, J. B. Carroll, president said, and is one of the earliest users of celluloid, the original plastic. Now they also use other types of plastics adapted to the company's products. Inks for printing on plastics have been a problem, Mr. Carroll said, but with cooperation of the ink makers, this has been worked out very satisfactorily.

H. L. Ruggles & Co., which was founded in 1887 and is one of Chicago's oldest printing concerns, got into offset two years ago. Miss Gladys Swanson, the company's creative director, had charge of their booth. In production of brochures, booklets and catalogs, letterpress and offset work well together, she said, and the combination is also attractive from a cost angle.

CONSOLIDATED CAMERA

THE CHOICE OF PROCESS LITHO ARTS, INC.

4515 N. Kedzie, Chicago, Illinois



**TAKE A TIP
FROM PLATE-
MAKING SPECIALISTS**

Process Litho Arts, Inc., platemakers for quality lithographers and offset printers from coast to coast considered every type of equipment before moving to their new modern plant. Only a camera capable of providing the best would do. Process Litho Arts, Inc., selected Consolidated Cameras and Consolidated Platemaking Equipment because of simplified operation and dependability. Take a tip from platemaking specialists . . . before you buy, investigate Consolidated . . . the best in quality — yet low in price.

A Consolidated 31x31 inch Process Darkroom Camera at Process Litho Arts, Inc., Chicago.

Back lighting for transparencies and camera positives.



Let us show you the many exclusive cost-saving features that make Consolidated the leader in the field.

Consolidated

**PHOTO ENGRAVERS and
LITHOGRAPHERS EQUIPMENT CO.**

2646 WEST NORTH AVENUE, CHICAGO 47, ILL.

• 205 WEST 19th STREET, NEW YORK 11, N. Y.

Porter Returns from Europe

Harry A. Porter, vice president in charge of sales, Harris-Seybold Co., Cleveland, returned May 30 from a three weeks trip to Europe. He visited London, Rome, Milan, Brussels, Amsterdam, several cities in Germany, Stockholm, Copenhagen, Paris, and other points, visiting lithographic plants and Harris-Seybold agents. He saw several demonstrations of new methods and processes.

Mr. Porter, in an interview on his return, said that there are opportunities in Europe for expanded sales of U. S. graphic arts equipment, but that the proposed end of the Marshall Plan in 1952 will require definite changes in selling techniques.

As president of the Direct Mail Advertising Assn. of the U. S., Mr. Porter addressed two direct mail advertising groups abroad. It was his first trip to Europe since 1929. He flew eastward, and returned on the "Queen Mary."

Leases Griffin Trade Shop

Griffin Bros., San Francisco typesetting and lithographic platemaking firm, have leased their platemaking shop to J. Dyke & Co. Mr. Dyke, an employee of the firm for the past three years, will manage the plant. He is associated with James Patterson, Edward Gettle and David Temple in the operation.

The new firm has a three-year lease on plant and equipment, with an option to buy. Plant remains at 394 Pacific Ave.

Wm. H. "Bud" Griffin, who formerly managed the plant, said that he and his brother, Earl, will devote their full time to their increased typesetting business.

Linotype Co. Acquires Davidson

The Mergenthaler Linotype Co., Brooklyn, on June 7 announced its acquisition of a majority interest in the Davidson Manufacturing Corp., Chicago, manufacturer of rotary duplicating presses, paper feeders, paper folders, plates and various supplies used in offset duplicating.

It was pointed out by Martin M. Reed, president of Mergenthaler, that

there is a natural affinity in the activities of the two companies. The purchase not only fits into the Linotype Company's diversification plans but also will enable Linotype to broaden the service it renders its customers, he said.

An offer has been made and steps are being taken by Mergenthaler for the acquisition of minority stockholdings in Davidson. When that action is completed, Davidson will be operated as a wholly-owned subsidiary of Mergenthaler. No other management or operational plans were announced.

The Mergenthaler Linotype Company is said to be the largest manufacturer of typesetting equipment. Davidson had a sales volume of about \$2,000,000 in its last fiscal year.

Arcco in Toronto Plant

Arcco Playing Card Co. (Canada) Ltd., a newly formed subsidiary of Arcco Playing Card Co. of Chicago, is setting up a stamping, sanding and gilt-edging plant in Toronto, according to the Toronto Industrial Commission.

The plant which will stamp out the card decks from lithographed sheets printed in Chicago, will be in a leased building. It is planned to have the lithographing done in Canada at a later date.

Albany Craftsmen Elect

The Albany Capital District Club of Printing House Craftsmen elected new officers and honored all past presidents at a meeting June 1 in Albany, N. Y. Guests included Russell Hogan, international president, and George Kedersha, district representative.

New officers are: president, Richard Thelen; vice president, Charles Gallagher; financial secretary, Norman Teahan; treasurer, John J. O'Hagan; recording secretary, Thomas Unseld, Jr.; sergeant-at-arms, James J. McCarthy.

Frank Trawinski was chairman of arrangements for the dinner. The club plans to hold its annual outing July 15 at Picard's Grove under the direction of Vic Van Audenhove.

Cite Effects of Color

The human body is sensitive to color and visible light energy, in a physiological sense, as well as in the psychological sense through vision, according to information just announced by Sun Chemical Corporation's Color Research Laboratory.

Several authorities have agreed that there are certain direct connections between the eye, the brain and the muscles and organs of the body. Sudden motion or brightness may cause the head to dodge involuntarily and the eyes to blink. Under the stimulation of bright lights and vivid hues, muscular tension will increase—and with this increase will go a rise in blood pressure and pulse rate. On the other hand, dim lights and soft, cool hues will release tension and cause blood pressure and pulse rate to drop.

Convert Letterpress to Roto

Four-color letterpress printing plates are now being converted to rotogravure plates by Triangle Publications, Philadelphia, for use in that company's various publications, the company announced in May. The April 30 issue of "Today," the Sunday magazine section of *The Philadelphia Inquirer* carried such reproductions.

Developed by Triangle and Gravure Enterprises, Inc., the process is said to result from extensive research and experiments. It will be offered soon to general advertisers in the *Inquirer* and other Triangle publications, and licensing to other gravure processors and printers is being planned.

Honor Milton Paper

The sales force of Milton Paper Co., New York, was honored recently by Crocker-McElwain Co. paper manufacturer, for achieving the largest volume of sales of Certificate Bond in the U. S. A dinner at Cavanaugh's was given.

Brooks Company Moves

The Brooks Company, Philadelphia, on June 7 announced the removal of its offices from 141 N. 11th St. to larger space at 2701 N. Broad.

LITHO CLUB NEWS

At Midwest Bowling Meet

Top, L. to R. At head table of dinner following recent bowling meet in Milwaukee between Litho Clubs of Milwaukee and Chicago are Carl Erickson, Chicago president; Roy Tenge, Milwaukee president; James J. Spevacek, recently retired president of the National Assn. of Litho Clubs; and Tony Dworzak, Milwaukee secretary. Second photo: The Chicago team: Messrs Cartwright, Spevacek, Dahling, Erickson and Payne. Lower, the Milwaukee team which won the match: Messrs Steib, Kramer, Klug, Van Cura, and Simon.



At the Milwaukee Club's May 23 meeting, 57 members and guests were on hand to hear a talk on roto-gravure printing by Fred Thiele, sales manager of the Ford Instrument Co. He discussed the process in terms of its advantages over other processes, and outlined types of work where it is advantageous. He showed samples of work done by roto-gravure. The meeting, which was held at the Bavarian Gardens, was presided over by President Roy Tenge. Steve Karabensh, picnic committee chairman, an-

nounced plans for the annual picnic to be held June 24 at the Lake Keesau Hotel. Other business included the acceptance of Harry Rossow, pressroom foreman of Milprint, Inc., to membership. The club's next regular meeting was planned for June 27.

Boston Club Mee's

The final meeting of the 1949-1950 administration of the Boston Litho Club, presided over by James F. Beldotte, president, was held at the Hotel Gardner, Boston, May 10. About 45 were present.

Mr. Beldotte appointed a nominating committee to choose a slate for the 1950-1951 nominees for election, which will be a ballot by mail. Members of the committee are: Philip Shakespeare, chairman, Kohl & Madden Printing Ink Co.; Thomas J. Tierney; New England Printer; Rocco Georgia, Lanston Monotype Machine Co.; Al Costa, Superior Printers, Inc.; and Robert Sanderson of Sanderson Brothers, North Abington,

Mass. The committee decided on a slate at a meeting held May 22, and the ballots were to be in the mail in the near future.

Joseph Bradley, Production Control Manager of the Rust Craft Co., Boston, was the featured speaker on "Production of Greeting Cards." A lively question and answer period followed the dinner-meeting.

Phila. Hears Zettlemoyer

Dr. A. C. Zettlemoyer, research head of the Printing Ink Research Institute, Lehigh University, Bethlehem, Pa., addressed 103 members and guests of the Litho Club of Philadelphia at its May 22 meeting at the Poor Richard Club. Dr. Zettlemoyer,

reporting on progress being made in lithographic ink research, discussed two phases of the program: development of equipment for testing inks, and a study of greasing of lithographic inks. The usual methods of testing lithographic inks for greasing tendencies are not dependable, he said, but indicated that progress is being made toward controlling the trouble.

The club announced final plans for the annual outing for June 17 at the Langhorne Country Club. A lunch was to be served at noon, and dinner in the evening following an afternoon of sports and other activities. This is the last event of the club until September.

New members include: Joseph A. Geppert, Robert Leiss & Co.; Howard T. Harcke and Charles Whitecar, Graphic Arts, Inc.; Capt. Eugene H. Odom, Marine Corps.; Malcolm Rice, Easton Printing Co.; Nicholas Kuchmay, John Spencer & Co.; and L. J. Selin, Jr., World Press.

Balto. Holds Fun Night

The Baltimore Litho Club laid aside all business considerations and devoted its final meeting of the season on May 15 to a "Fun Night." One of the features was the showing of a motion picture "Hunting in Alaska."

No regular meetings are planned for July and August, but the annual summer crab feast is planned for July 22 at Hasslingers restaurant.

On May 4 the Baltimore club defeated the Washington Litho Club in a golf match held at the Maryland Country Club, and a return match was scheduled for June 15.

A nominating committee was appointed to report at the September meeting. Members are Frank Denver, Adcrafters Co., Ed Steinwedel, Crown Cork & Seal Co., and Norman Heath, Photo Litho Plate Graining Co.

Many Clubs Suspend Meetings

Most of the Litho Clubs, now numbering 18, suspend activities during the summer months, except for various picnics and outings. Regular meetings in most cases are resumed in September.

Discuss Foremen in N. Y.

A discussion of the place of foremen in industry was featured at the May 24 meeting of the Litho Club of New York, under the title "Bridge to Industrial Harmony." The speaker was Bruno R. Neumann, vice president of the National Foremen's Institute. In his talk he pointed up the responsibilities of the foreman to his employer and to the men in the shop.

About 100 members and guests attended the meeting, which was held at the Building Trades Club.

The club's annual outing was held June 3 at Blasberg's Grove, Hawthorne, N. J. with a crowd of 220 in attendance. A "breakfast" was served at noon to get the affair officially under way. Sports, games, and other activities filled up the afternoon program and a shore dinner concluded the day's agenda. Michael Annick, Rutherford Machinery Co. Div., Sun Chemical Corp., was general chairman of the outing.

A feature of the afternoon was the

softball game between lithographers and suppliers which the supply men won 14-9. Ralph Rogers, IPI, was the umpire.

The photos below show some of the crowd.

This was the last club activity until regular meetings are resumed again in September.

Schuerman Reports Convention

Ollie Schuerman, Con P. Curran Co., who represented the St. Louis Litho Club at the recent convention in Boston of the National Assn. of Litho Clubs, reported on the affair at the club's May 4 meeting at the York Hotel.

In the business meeting, plans were made for a Mississippi boat trip on the *S.S. Admiral S. Melmes*, in charge of the lithographic department at the Ranken School, was elected to club membership. The club's next meeting was planned for June 1. No meetings are planned for July and August.

Cincinnati Club Takes Cruise

Election of officers of the Cincinnati Litho Club was to be held on June 13, when members of the club and their wives were to enjoy an annual evening boatripe on the Ohio River. The annual club picnic is scheduled for August 13.

Paul Dorst, lithographic consultant, and a member of the club, was the speaker at the monthly dinner meeting of the club in Hotel Gibson on May 9. He discussed grainfin, and participated in a round-table discussion following his talk.

Guests at the meeting were Jack Dougherty of Roberts and Porter, Inc., Chicago, and George Stevens, vice president, and Daniel J. Gallagher, technical representative of the Crescent Ink and Color Co., Philadelphia.

During the business session, president Louis J. Weiss submitted a report on the Boston convention.



Studies Summer Problems

The Chicago Litho Club's May 25 meeting at the Congress Hotel featured a discussion of summer operating difficulties in which a goodly number of the 75 members present participated. For the occasion club President Carl Ericksen and the education committee assembled a panel of answer men which included Frank Preucil of Gerlach-Barklow Co., who covered color correction; Paul Hartsuch of IPI, for plate-making questions; Otto Smith of Veritone Co., for press work and Robert F. Reed of the Lithographic

Technical Foundation for paper problems. Moderator was Wm. O. Morgan, general manager of the Chicago Lithographic Institute, who substituted for Michael H. Bruno of L.T.F., who was out of town.

Some 50 questions were offered but lack of time made it impossible to consider them all. Among those given attention however, were plate problems, relative humidity, wash up, scumming and tinting, pressure packing, slurring, shooting of negatives for coated stock, and elimination of tape marks in photo composing operations. Suggestions offered by the

experts, coupled with the free exchange of practical experiences by the members contributed to a profitable session.

Mr. Bruno's absence forced postponement of his promised review of new tools for the future in which he was to report on the *Time-Life* electronic scanning device for halftones, the acetate printing plate, photo type-setting and other developments.

Next meeting of the Chicago Club will be on Sept. 28, when they will journey to Joliet, for a tour of the Gerlach-Barklow plant and a dinner at a downtown restaurant. Plans also were announced for the Club's Play Day, with golf and other entertainment, at Woodridge Country Club on Sept. 16.

NORMAL A.H. PLATES and FILMS



Non-orthochromatic. Fine grain emulsion with a long scale of gradation. Exceptional latitude in exposure. Ideal for brilliant copy negatives, and particularly recommended for use in making photogravure positives.

The Normal A.H. plates are also available with a matte emulsion.

Inquire of your local Gevaert distributor or write direct.

The GEVAERT COMPANY of AMERICA, Inc.
423 West 55th Street, New York 19, N. Y.
In Canada: Gevaert (Canada) Ltd., Toronto, Ont.

Washington Holds Ladies Night

The Washington Litho Club held its ladies night May 23 at Hotel 2400, and heard Ralph Evans, Eastman Kodak Co., present a slide-illustrated popular talk on color. About 200 members and guests attended.

Dinner was followed by Mr. Evans' presentation which included a large number of colored slides. Dancing concluded the evening.

Albert R. Materazzi, Aeronautical Chart Service, club president, presided, and Jerry P. Looney, Navy Hydrographic Office, was in charge of reservations. Charles Cook, Haynes Lithograph Co., is program chairman.

This was the last meeting of the club until September.

Detroit Hears of Scanner

The *Time-Life* color scanner was described to the members of the Detroit Litho Club May 11, by Harvey T. Holsapple of the Harold M. Pitman Co. He explained the principles and purposes of the complex device which produces color separations by electronically scanning color transparencies. (ML, May, 1950, Pg. 28) Mr. Holsapple also discussed pre-sensitized offset plates.

The club is planning a cruise to Buffalo and Niagara Falls during the latter part of June, while a regular meeting was planned for June 8. A speaker representing Harris-Seybold Co., Cleveland, was to be present.

LITHO CLUB GUIDE

BALTIMORE

J. T. Keating, Secy.
Bingham Bros. Co.
125 Colvin St., Baltimore 2, Md.
Meets 3rd Monday, Park Plaza.

BOSTON

Edw. Harnish, Secy.
109 Mill St., Lexington, Mass.
Meets 2nd Wed., Hotel Gardner.

CHICAGO

Wm. D. Morgan, Secy.
Chicago Lithographing Institute
1800 S. Prairie Ave., Chicago 16
Meets 4th Thursday, Congress Hotel.

CINCINNATI

Max Birri, Secy.-Treas.
The Palm Bros. DeCal Co.
Rogent, Lexington & Spencer Ave.
Meets 2nd Tuesday.

CLEVELAND

Sol D'Allesandro, Secy.
Horn & Norris, Inc.
2729 Prospect Ave., Cleveland
Meetings announced locally.

CONNECTICUT VALLEY

Robert Ervin, Secy.
Hubbard, Inc.
1188 Main St., Bridgeport, Conn.
Meets 1st Friday, March, May, Sept., Nov.,
and sometimes other months, City Club, Hartford.

DALLAS

Walter H. Tew, Pres.
Century Printing Co.
Meets 1st Monday of Month

DAYTON

Edward Bode, Secy.
504 Marjorie Ave.
Dayton 3, Ohio
Meets 1st Monday.

DETROIT

Erwin Stetzer, Secy.
Welker Letter Service
66 E. Forest, Detroit 1, Mich.
Meets 2nd Thurs. at Carl's Chop House.

MILWAUKEE

Anthony Dvorzak
4956 W. Vollmer Ave.
Milwaukee 15, Wis.
Meets 4th Tuesday at the Miller Inn.

NEW YORK

Hammond Sullivan, Secy.
Woodrow Press
227 E. 45th St. New York 17
Meets 4th Wednesday, Building Trades Club

OMAHA

Walter Graham, Secy.
Modern Litho Co.

ONTARIO

Norman R. Hurst, Secy.
R. G. McLean, Ltd.
26 Lombard St., Toronto, Ont.

PHILADELPHIA

Joseph Winterburg, Secy.
622 Race Street,
Philadelphia 6.
Meets 4th Monday, Poor Richard Club.

ROCHESTER

Carl Biggar, Sec'y.
Rochester Offset Plate Corp.
89 Allen St., Rochester.
Meets 2nd Tues., Sheraton

ST. LOUIS

Fred Francis, Sec'y.
Comfort Plg. Co., 200 S. 7th St.
Open meetings in Feb., April, June and Aug.

TWIN CITY

Robert Batten, Secy.
Lund Press, Inc.
700 S. 4th St., Minneapolis 15
Meets last Thursday of month.

WASHINGTON

Robert E. Russell, Secy.
3106 Old Dominion Blvd.
Alexandria, Va.
Meets 4th Tuesday, Hotel 2400 (N.W. 16th St.)

NAT'L ASS'N. OF LITHO CLUBS

Edward Harnish, Pres.
109 Mill St., Lexington, Mass.

Conn. Hears Silk Screen Talk

A talk on silk screen printing, by Ralph Audrieth, of Sinclair & Valentine Co., New York ink firm, with a demonstration and exhibit of techniques and specimens, featured the June 2 meeting of the Connecticut Valley Litho Club. Michael Pagliaro, Polygraphic Co. of America, North Bennington, Vt., president of the club, presided at the meeting, which was held at Hotel Bond, instead of at the regular meeting place, the City

Club. About 60 members and guests attended.

Assisting Mr. Audrieth was Robert Norton of the Screen Process Printing Assn., International.

Business included the presentation of honorary membership cards, etched on aluminum, to Anthony DiNicola, first president of the club, and to Robert P. Long, *Modern Lithography*.

The outing is planned for Aug. 26, Turner Park, Longmeadow, Mass.



The New Brighter White FALPACO is preferred for Finest Reproduction Qualities

Since the introduction of the new, brighter white Falpaco Coated Blanks, lithographers and printers have been able to secure greater color contrast, maximum reproduction and perfect register in point-of-sale displays, car cards and calendars. *This* assures greater effectiveness.

The National Biscuit Company car card shown above is a fine example

of this greater effectiveness. It was produced by offset lithography by Edwards & Deutsch Lithographing Co. of Chicago on 5-ply Falpaco, single coated one side for offset.

Falulah has two types of coatings: one especially for offset lithography and varnish; the other especially for letterpress. Use Falpaco Coated Blanks on your next job.

Distributed by Authorized Paper Merchants
from Coast to Coast



PAPER COMPANY

NEW YORK OFFICE • 500 FIFTH AVE., N. Y. 18
MILLS-FITCHBURG, MASS.

New Era Marks 50th Year

Its 50th year in the manufacture of specialty presses is currently being observed by the New Era Mfg. Co., Paterson, N. J. A golden anniversary booklet has been issued to commemorate the event, and the booklet also serves as a catalog of the company's current line of specialty presses. The company's first press was built in Peabody, Mass., in 1900 and is still operating in Philadelphia. Other presses were developed through the years, mostly in the field of tag

making, die-cut specialties, forms, labels, tabular material, cards, etc., mostly using the roll fed principle. A number of offset web-fed presses in five sizes also have been built.

The New Era name was adopted in the early twenties when the manufacture of multi-process presses was taken over from the Regina Co., Rahway, N. J., which had earlier acquired the business of the Machine Sales Co., Peabody, Mass. The New Era firm moved to its present location at 375 Eleventh Ave., Paterson, in

1928, and Horace C. Lockwood, who now heads the firm, acquired control in 1940. Two divisions have been added: Lockwood's, Inc., for manufacturing the Superior press for small runs of labels, tickets, etc., and the Graeber Stringing and Wiring Machine Co.

Announce Display Item

Transparent full color reproductions of printing or lithography, for use in display work with transmitted light, have been announced by the Transichrome Corp., 43-77 Vernon Blvd., Long Island City 1, N. Y. In the company's process, details of which are not announced, the actual ink is removed from printed sheets to a transparent film in full color strength, it is claimed. These films are suitable for use in light boxes for display purposes. A separate printed sheet is required for the production of each transparency. Any number of colors may be handled in the process.

Ford Co. Buys Atlanta Plant

The J. W. Ford Co., advertising typographers of Cincinnati, Ohio, has purchased the plant and equipment of Hartsfield Typographers, Inc., 136 Marietta St., N. W., Atlanta, Ga., it was announced by Carl H. Ford, president.

D. W. Stephenson, who has been regional sales manager for the Ford Co. in the Atlanta territory, will be manager of the new plant, and Sol Malkoff, typographer and calligrapher, will be production manager and director of typography and design.

Four Day Gravure Strike

Six Chicago rotogravure plants were shut down by a four-day strike of the Chicago photoengravers union early in May. Settlement was effected by a \$3 a week pay raise and a 1½ hour reduction in the work week. Although of brief duration, the strike affected publication of several national magazines, newspaper feature sections and catalogs.

PRE-PRESS WAX TEST Checks Coating Pick



You'll save time, money and headaches on any printing job by pre-run testing of the paper. For real help in predicting the behavior of stock on the press use DENNISON STANDARD PAPER TESTING WAXES. The graduated adhesive properties of these waxes provide you with working estimates of coating pick

and bodystock strength.

Constant laboratory control and exacting standards of manufacture make these waxes a reliable measuring instrument.

For a pamphlet giving details of DENNISON STANDARD PAPER TESTING WAXES, write Dennison Manufacturing Company, Dept. ML, Framingham, Mass.

This improved test is recognized by the Technical Association of the Pulp and Paper Industry (TAPPI Method T459m-45)

Dennison
STANDARD
PAPER TESTING WAXES

Playing Card Exports Slowed

Marshall Plan aid to Europe is having repercussions on sales of American playing cards abroad, according to Ludwig Batzner, export manager for Arrco Playing Card Co., subsidiary of the Regensteiner Corp., Chicago. Last year Arrco sold more than \$1,000,000 worth of cards in various countries. Then the Economic Cooperation Administration, according to Mr. Batzner, decreed that playing cards are a luxury and not entitled to Marshall Plan funds. Europe's playing cards must now be printed at home, thus encouraging local economic recovery. However, Mr. Batzner said, the paper stock of a quality suitable for playing cards has to be bought from American mills.

Some sales of American-made cards are being made in other countries, such as Switzerland, he stated, and a big market for American cards exists in the near east. Here at home, he added, production is booming because of interest in Canasta.

At the recent Chicago convention of the National Association of Tobacco Distributors Arrco had a large display of its playing card line for sale through smoke shops. Another exhibitor was Consolidated Lithographing Corp., Brooklyn, N. Y., which presented its line of self-service "merchandisers" and other lithographed display materials, catering to impulse buying in tobacco stores. Wilson Jones Co., Chicago manufacturer of loose leaf accounting forms, displayed its line of notebooks, account, ring and memo books.

Joins Safety Group

Democrat Printing & Lithograph Co., Little Rock, Ark., has become a member of the National Safety Council's printing & publishing section, it was announced recently from the Council's Chicago office.

Minn. Co. Marks 25th Year

Lund Press, Inc., Minneapolis, recently issued a colorful booklet in observance of its 25th anniversary year. The company, in addition to a complete composing room, and letterpress equipment, also operates an

offset department with several small offset presses, a camera and plate-making equipment.

The booklet is attractively printed in blue, maroon, silver and black, with offset covers.

Distributes Fine Art Copy

A reproduction by "Deeptone" offset of the oil painting "Young Woman with Water Jug" by the Dutch master Vermeer, was dis-

tributed recently by R. R. Donnelley & Sons Company, Chicago. The painting, which hangs in the Metropolitan Museum of Art, New York, is reproduced in a 15x19" folder of heavy offset stock.

Florida Firm Goes Offset

Parker Art Printing Association, Coral Gables, Florida, a letterpress printing and publishing concern, recently ordered a perfecting Webendorfer offset press.

Central COMPOUNDING COMPANY
1718 North Duane Avenue Chicago 27, Illinois
IN CANADA—By CANADIAN FINE COLOR CO., LTD., TORONTO
Export Division, Guiteman Co., Inc., 35 South William Street, New York 4, New York

New Package Color Picker

The IPI Color Picker, a pocket-size portfolio of color cards (clay coated) for selection of colors for packages, is now being distributed by International Printing Ink Div., after being introduced at the recent Packaging Exposition in Chicago. The Color Picker consists of 40 $3\frac{1}{2} \times 5$ " colored cards, 12 color circles and full instructions. Cards list the colors best suited for harmony and contrast. All are keyed to the IPI Color Guide

for Boxboard. Information is available from the company at 650 Eleventh Ave., New York 19, or from IPI branches.

New Shop Manual

A new Shop Manual (No. 21) "Tone and Color Correcting, Continuous Tone," has just been issued by the Lithographic Technical Foundation, 131 East 39th St., New York 16, N. Y.

Kammerer Heads Metal Firm

Harry G. Kammerer, with several associates, recently formed the Pittsburgh Metal Lithographing Co., Inc. They have purchased the Cononsburg, Pa., plant of National Can Corp. Mr. Kammerer, prior to this new position, was director of lithographing for National Can. He is also active in the National Metal Decorators Association.

Mr. Kammerer's son, William G., who was plant manager at the Cononsburg Div. of National Can, will continue in the same capacity for the new company.

Pittsburgh Metal Lithographing will be operated as a job lithography plant for users of lithographed and decorated tin plate and black plate.

Miehle Advances Iverson

Harold Iverson, manager of the San Francisco district office of the Miehle Printing Press and Mfg. Co., Chicago, will now supervise sales and service in the entire Pacific Northwest territory in addition to Northern California, Carlton Mellick, Miehle vice president in charge of sales, announced. Miehle men will replace agents formerly representing the company in Oregon, Washington, Montana and Northern Idaho.

Arrangements have been made with Harry Hill Co., Portland, and Edwin C. Dwyer Co., Seattle, to stock Miehle repair parts and handle service in the area.

Time to Market Products

New graphic arts machines and processes developed at the Time, Inc., laboratory are to be placed on the market by Printing Developments, Inc., which is being organized by Time. Developments include the color scanner, Lithure bi-metal litho plates, machine-coated paper, web offset press improvements, improved letterpress plates, and publication inks. William H. Webber is president of the new division.

New Opaque Offered

"Misc-o-pake," red negative opaque said to be chip-proof, has been announced by M. I. Sachs Co., 26 East 23 St., New York 10, N. Y.

*The place
to get your*
**ANSCO
FILM**

NATIONAL STEEL & COPPER PLATE COMPANY

700 S. Clinton St.
CHICAGO 7, ILL.

653 Tenth Avenue
NEW YORK 19, N. Y.

Suppliers of Copper, Zinc, Chemicals and Equipment to the
Graphic Arts for the past 49 years.

EQUIPMENT

SUPPLIES, SERVICES, BULLETINS

New Haloid Paper Negative

The Haloid Co., Rochester, N. Y. has just announced "Transaloid" a transparent paper negative material designed to lower production costs for various reproduction uses. According to John B. Hartnett, vice-president in charge of sales, this new material has resolving power close to film, and will produce "excellent results on line work and halftones up to 133 screen."

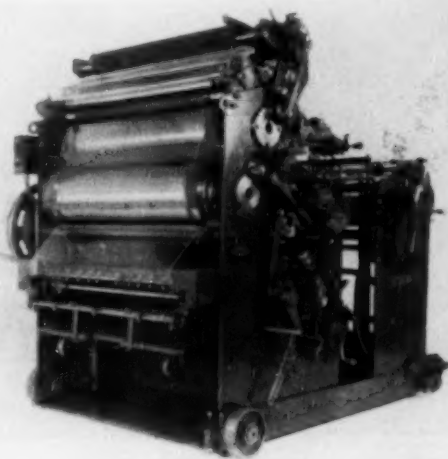
This material has a high contrast and high density emulsion on a transparent water resistant base. Freedom from paper grain assures reproduction of sharp detail, the company says. The material uses standard developers and fixing baths now in general use. Other claims made include: prints as fast to plate as film on metal; has excellent dimensional stability, good contrast and wide range of latitude in exposure time; easy to opaque; lies flat; can be scribed easily on the emulsion side; and cuts clean along the edges. It is available in cut sheets from 8"x10" to 30"x40" and in rolls from 6" to 40" wide.

Shows New Color Approach

A process providing a new approach to color photography with which a person may make use of "creative art" was announced during May by Eastman Kodak Co. "Methods such as those used in the Kodak Dye Transfer Process offer the possibility of modifying realism," a Kodak description of the process states. "By taking advantage of masking techniques of various sorts, and the flexibility of the matrix transfer system, it is possible to 'take a picture apart.' Various parts of the picture may then be recombined, or some omitted, to produce new and interesting combinations. In some of these combina-

Airborne Press

An airborne-mobile offset press, designed for compactness and for easy and quick transporting by truck or airplane has been developed for the U. S. armed forces by the Engineer Research and Development Laboratories, Ft. Belvoir, Va., in cooperation with the Webendorfer Div., American Type Foundries. It is a variation of the ATF 22 x 29" press, but is constructed on welded steel plate instead of castings, to reduce weight. Cylinders are hollow to further reduce weight. It weighs 4,200 pounds, one-third less than a standard "Big Chief" press. Height has been reduced from 72½" to 60" and the length from 89" to 73". The press was part of an exhibit of the Engineer Laboratories at Bolling Field during the Armed Forces Day celebration in May.



tions, the realism of the scene is lost completely, and in some partially."

A booklet, titled "Derivations from Color Photographs," priced at 25c, describes the technique of the new medium, and is available from the company's dealers.

New Handschy Fast-set Ink

"Max-Arid," a new ink offered in black and colors, which sets almost instantly, is announced this month by A. E. Handschy Co., Chicago, manufacturers of inks and supplies. The name implies "maximum dryness," the company says, and it offers samples either direct or through its distributors.

Mohawk Samples Paper

During May, the Mohawk Paper Mills, Inc. distributed samples of several of their paper stocks. The subject was a reproduction of Renoir's "Mlle. Romaine Lacaux," and was printed in four-color offset, on Mohawk Superfine Cover, Artejemis Cover, and Navajo Cover.

New Kodachrome Viewer

A new Champion Kodachrome viewer, with a glass area 9½"x13½", has been announced by H. Schmidt & Co., 317 S. Paulina St., Chicago 12. Called viewer No. 2, it is part of the company's line which includes larger viewers, negative racks, trays, film handling equipment, whirlers and developing sinks. A recently announced product is the Champion temperature controlled developing sink which is manufactured in three sizes: 20x24; 26x30; and 30x40. Descriptive folders are available from the company.

Pomade Folder Available

A folder describing Universal Putz Pomade, a compound claimed to eliminate roller stripping is now available from J. C. Paul & Co., 930 Roscoe St., Chicago. The compound is applied like ink to press rollers at wash-up time, and is removed with regular wash-up machine. It is also used for cleaning up cylinders in rotogravure printing.



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Converters Announced by Dutro

The Pearce Multi-Converter (above), is now being offered by Orville Dutro & Son, Bendix Bldg., Los Angeles, it was announced during May. The press prints, imprints, numbers, perforates two ways, punches various shaped holes, corner-cuts, die-cuts, scores and cuts to sheets in singles or gangs, or rewinds, in one continuous operation. It is useful for form, tag, ticket or label or similar work, the company says. The firm also announced the new Dutro Colorverter which colors, slits and rewinds paper in one operation. This machine was developed to meet the problem of large stock inventories in plants using roll paper. Only white roll

stock need be stored, and it can be converted to any color, and slit to various widths for further processing. The Colorverter requires a floor area of 5 x 8 feet. Descriptive folders on the two machines are available from the Dutro company.

Shows B & W as Color

An optical device to produce a full color image from four color separations for purposes of color and tone correction has been announced by Adrian LeRoy, 1109 N. Kingsley Drive, Hollywood, Calif. Called a Color-Viser, the device has space for placing four glass or film separations, with registering mechanisms. A full-color image, with each separation projected in the proper color of the process ink, is shown on the projection screen. Color correction can be done on any of the separations while they are in the machine and the total effect can be seen immediately with the other separations. A built-in densitometer can be brought into play and will magnify any part of the separations 100x for closer study and correction. This magnification is said to reveal the density of individual dots and their condition. The separations may be of any size from 5 x 7" up to 18 x 22". The machine is not now on the market, and work is still being done on it.

Senefelder Issues Booklet

The Senefelder Co., Inc., 32 Greene St., New York 13, N. Y., recently distributed a pocket-size booklet "Everything for Lithography," describing the company's line of inks and supplies.

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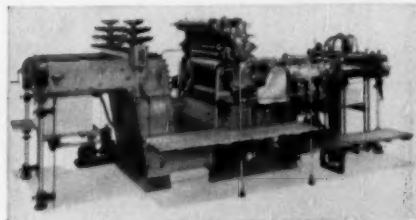


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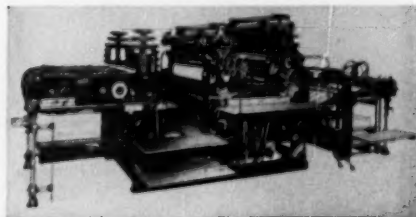
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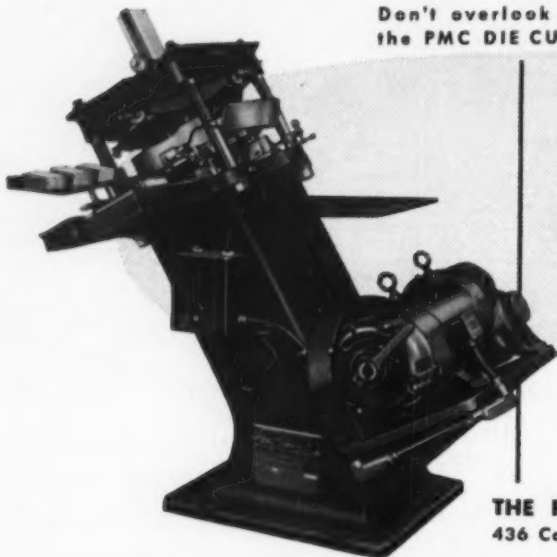
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used to package shaving and pharmaceutical products, but tests are being made to package other products including food. The company's tube activities are centered at the Frederick Hart plant in Poughkeepsie, N. Y. J. T. Shillingford is sales manager of the division. Advantages claimed are added strength through lamination, extreme flexibility preventing ruptures, heat sealing which eliminates bad folds, crimping and leakage; and the plastic lamination which protects tube contents.

The outside plastic sheeting usually is reverse printed (by gravure) before laminating to the aluminum foil. Printing also can be done by gravure directly on the foil in the usual manner, before plastic lamination.

New Miller in Production

At a recent sales meeting in Pittsburgh of the Miller Printing Machinery Co., president Gordon Montgomery announced that the company is now in full production on the new Miller 19x25 SG automatic cylinder letterpress. Five days after the meeting, the June and July production was completely sold, he said. This new press features several improvements. With the delivery raised, the press stands 5'8½" high; length is 11'9¾"; and width 6'9½" with feeder swung open. The maximum size sheet is 19"x25" with a minimum sheet of 7"x10". The range of operating speeds is from 2750 to 5000 sheets per hour.

Book on Photo Optics

"Photographic Optics," by Arthur Cox, 412 pages, \$5.75. Pitman Publishing Corp., 2 West 45th St., New York 19.

Reviewed by Herbert P. Paschel

The quality of photographic image is, for the most part, dependent upon the quality of the lens and its suitability to the specific photographic task. This involves such considerations as resolution, definition, focal length, covering power and color correction all of which, for optimum results, must be properly correlated to the requirements of the photographic assignment.

In the Graphic Arts, the photographic operations are becoming more complex. With the introduction of


techniques involving infra-red, ultra-violet, fluorescence, color masks, color composing, etc., the demands upon optical equipment are becoming more critical. Obviously, the photographer must have a fuller understanding of lens performance.

"Photographic Optics," the technique of definition, is written in simple language, profusely illustrated with diagrams, charts and tables which provide a wealth of information, both theoretical and practical, concerning photographic lenses. The chapter on the testing, for example, contains much practical information for checking a lens for various defects and performance. By proper application of

these tests it can quickly be established whether a lens has the proper characteristics for a particular use or, when trouble is encountered, whether or not the lens is at fault.

Even a brief resume of the contents reveals the detailed treatment of the subject. The seven chapters cover Light and Lenses, The Ideal Lens, Defects in Lenses, Basic Lens Types, Testing Optical Equipment, Aids to Better Performance, Accessories.

Since the subject embraces all phases of photography, the value of "Photographic Optics" extends beyond the photomechanical applications.



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New Adv. Production Book

"Production in Advertising," a new textbook and working aid for graphic arts students and for those engaged in advertising, publishing and printing production, was published May 10 by Colton Press, Inc., New York. The 392-page, fully illustrated volume, covering up-to-date descriptions of the graphic arts processes, and production procedures, was written by David G. Hymes, specialist in production, layout and typography, and lecturer in advertising production at the College of the City of New York.

The book presents a fully illustrated explanation of printing processes, paper making, photoengraving, electrotyping and binding. In addition, it contains a typography section, with showings of the 70 most-used type faces and copy-fitting data for more than 850 faces in sizes up to and including 24 point; and a tabular section giving the basic and equivalent weights and sizes of book and bond papers.

Some 23 pages are devoted to production by offset lithography.

New developments in the graphic arts are brought up to date with de-

scriptions, among others, of Xerography, the Fotosetter photo-type-setting machine, the Fairchild engraver, and such art-aid and photographic reproduction processes as Flexichrome, Kodak fluorescent water colors, Colotone and Solotone sheets, and Ektachrome. Other graphic arts developments described are Perfect binding, bi-metallic offset plates, the Fototype method, and plastic plates.

Folder Shows Paper Use

A folder sampling the newly introduced Whitney Offset was distributed during May by Hollingsworth & Whitney Co., Boston. The folder shows four-color process, line work and black halftone work on the paper.

Barker Greeting Card Appoints

Appointment of Marvin Q. Kalan as eastern sales manager for the Barker Greeting Card Co., Cincinnati, has been announced by William B. Shane, vice president of the firm. Kalan's new post will cover the eastern seaboard.

Sponsors Direct Mail Meetings

Lee Letter Service, New York, is sponsoring a series of direct mail round table meetings planned to encourage an exchange of ideas on the subject. At the June 1 meeting, held at the Brass Rail restaurant, William H. Elliott, vice president of Lutz & Sheinkman, lithographing firm, was a member of a panel. Executives of a number of well-known firms which use direct mail were on hand for the discussion.

Offers Layout Portfolio

A portfolio of paper samples, suitable for making up dummies and layouts, with suggestions for direct mail and other formats is being offered by Milton Paper Co., 119 W. 24th St., New York.

Quigley Interchemical Director

Joseph A. Quigley, divisional president of the Intag Div., Interchemical Corp., New York, was elected a director of the parent company April 17. The Intag Div. manufactures ink for gravure printing.

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ORGANIC COATINGS - GRAPHIC CHEMICALS

Cites Litho Chemical Dangers

Chromium compounds used in lithographic formulas have been the source of most of the trouble from chemicals encountered by employees of the Spaulding-Moss Co., Boston, according to M. N. Friend, chief chemist for this concern. Writing in a recent issue of the *Safety News Letter*, prepared by the National Safety Council's printing and publishing section, Mr. Friend pointed out that under certain conditions a person can contract chrome dermatitis resulting in a long period of lost time, plus a tendency for the complaint to recur after what seems like a complete cure. "We have had to transfer such employees to jobs where they are not in contact with the chemicals, in most cases," he said. He called attention to discussion of this subject in the L. T. F. publication, "Preventing Occupational Dermatitis in Lithography."

In the general use of other chemicals Spaulding-Moss has experienced no particular trouble, he stated. However, two chemicals, potassium cyanide and benzol, have been outlawed for use by his company's employees and in their place toluol and xylol have been substituted.

In the camera department, he went on, there is some danger of dermatitis from developing chemicals, particularly metol, although no case has occurred in his plant. In the plate department safety cans are required for necessary flammable solvents. Hydrochloric acid fumes and denatured alcohol are the hazardous ingredients in deep etch plate making for which, he cautioned, adequate ventilation and normal precautions are essential.

"In the press room," he continued, "flammable solvents, notably white gasoline in large quantities and carbon bisulfide in small quantities, are logical solvents to handle with care. Turpentine, another dermatitis source, is fortunately used much less than it was a number of years ago."

25 New Cleveland Members

Twenty-five new members recently have been added to the Cleveland

Club of Printing House Craftsmen, George Wise, of Dugan-Millis Co., club vice president, announced. This is half of the club's quota of "50 members in 50." Thomas P. Mahoney, American Greeting Publishers, heads the club.

Named Director of Keller

Irving R. Pries has been elected a director of William J. Keller, Inc., Buffalo, N. Y., it was announced by Penn R. Watson, Sr., president. A

graduate of Burgard Vocational High School, Buffalo, Mr. Pries started with the Keller firm in 1929 and has been superintendent of the plant for the last ten years. The firm does printing, lithographing and binding.

Meyercord in Adv. Program

A full page advertisement promoting decals of the Meyercord Co., Chicago, appeared April 26 in the *New York World-Telegram and Sun*.

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AIR CONDITIONING

(Continued from Page 59)

the air stream as water vapor. An additional piece of equipment is thus avoided. A relatively small amount of triethylene glycol is consumed.

Since the surface tension of triethylene glycol is low, it wets small dust particles more readily than does water. Because of this, the absorber acts as an efficient air cleaner. However, to avoid clogging of the system with accumulated dirt, air filters should be placed in the air stream.

There are indications that the glycols, especially triethylene glycol, tend to inhibit transmission of diseases, especially respiratory diseases. Its presence in the atmosphere is entirely without harm to human beings, and it will not in any way damage the materials used in lithography.★★

Incorporate New Orleans Firm

I. S. McElhinney Co., Inc., New Orleans, printing and lithographing firm, recently was incorporated.

To Tally House Magazines

Printers' Ink magazine is currently revising its Directory of House Organs which listed 5,300 company publications in 1947. The magazine is now seeking data on all company magazines with information on the type (for employees, customers and prospects, or a combination), where and how often published, etc. Copies of the directory will be sent to companies listed. *Printers' Ink* is located at 205 East 42 St., New York 17.

COPY PREPARATION

(Continued From Page 34)

The procedure from then on is to transfer all material from the key-line drawing that is to run in the color drawing you are making. (This often is done in the stripping operation, but we are not concerned here with that method.)

This is simply a matter of accurate tracing, pasting-up or transferring. Through the transparent sheet being processed, the artist can

at all times see his key-line drawing, and with T square, triangle and dividers, get everything in accurate register. With this work done the first color drawing is completed and the procedure for additional colors is exactly the same.

When the drawings for color are made they should be placed over the key-line drawing, using the register marks, and register carefully checked before the job is considered finished. This procedure with the finished art work is exactly the same as the procedure when the negatives are com-

pleted. The negative stripper will place his negatives on a glass-topped table, illuminated from below, using the register marks for adjustment, and make the second check for accuracy before sending the job along to the plate maker.

The area for any halftone (which usually prints in black, the key color) must be indicated on the key-line drawing. If it should happen to run on one of the color plates it must be indicated on the drawing for that color. Two methods are in use, the first one being the drawing to

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size of the area for the halftone in a black line a little heavier than hair-line. The second is to indicate the area with a solid black mask, which can be cut out of masking paper (black or red) and rubber cemented in position on the drawing, or the area may be filled in solid with India ink. The paper mask is recommended because it will not cause the paper to buckle or shrink, although on the illustration board of the key-line drawing, India ink can be used. Then, the paper mask leaves an open space, a "window" on the key line negative, which simplifies matters for the negative-stripper in inserting the halftone negative.

In cases where outlined or irregular-shaped halftones are specified much time can be saved and accuracy assured by ordering a photostat of the halftone copy to correct size, inking it in solid black, cutting it out with a sharp knife or scissors and mounting it in position. Should the camera department happen to shoot the halftone negatives before the art work is completed, photo prints can be made from these negatives and inked in, cut and mounted down in position with rubber cement.

In jobs not requiring "tight register" the photo-print often speeds art production. The key-line drawing is made first in the manner explained. Then a regular photographic copy negative "same size" is made of the key-line drawing and (in the case of our three color job, illustrated) three glossy contact prints are ordered. These prints are rubber-cemented down on illustration board and, using chinese white, or cutting out with a sharp knife and peeling off, color separation is accomplished. The procedure is illustrated and explained in the illustrations. Comparative costs for simple color jobs favor this method over the one where a drawing is made for each color. The only danger is shrinkage of prints but if a good grade of heavy photo printing paper is used this hazard is reduced to a minimum. To check register on a job made from photo-prints lay a piece of tissue over the key-line print and pencil in the regis-

ter and trim marks. Then check the other prints with this.

On jobs requiring only simple color separation, many plants dispense with art reproduction copy for each color but make a negative from the key-line drawing and one for each color specified. Then, the negative opaquer paints out all colors on each negative that are not to appear on the offset press-plate. This procedure is very much like the one illustrated showing the use of photo-prints for color separation.

These are the basic principles of preparing simple reproduction copy for offset printing, and once understood will constitute the knowledge necessary for an artist to handle more intricate jobs correctly.

The sales or contact man employed by an offset printer, knowing these basic principles of simple color copy preparation, will be able to answer any questions he may be asked about final copy-preparation costs, which is important in selling new customers and keeping old ones.★★

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TECHNICAL BRIEFS

(Continued from Page 48)

of the graphic arts progress during the past year. The article covers briefly several fields: process photography (masking technique), lighting and densitometry, line and halftone reproduction, type composition photogravure, photolithography, color reproduction, miscellaneous developments, and the silk screen process. A bibliography is included in the article.

***Air Conditioning.** *Modern Lithography* 18, No. 4, April, 1950, Pages 55, 57, & 93 (3 pages). This installment discusses the following factors which must be considered in the design and operation of an air-conditioning system: heating, ventilation, availability and cost of water, air cleaning, and humidification.

***Simplified Humidity Control for Smaller Plants.** William W. Ayre. *American Printer* 130, No. 4, April, 1950, Pages 45-47 (3 pages). The advantages of moisture-conditioned air are now possible in small and medium sized shops through inexpensive units. Humidity control is suggested as a method for eliminating static and as a means of controlling register. Humidifiers for small plants can be purchased for as little as \$250 each. These units will take care of 20,000 to 25,000 cubic feet of air. It is claimed that 24 hours after installation the atmosphere of the interior of the plant is properly humidified.

***Analysis of Color Control from a Buyer's Viewpoint.** E. H. Balkema. Part I *American Ink Maker* 18, No. 4, April, 1950, Pages 23-26 and 49 (5 pages). Part II *American Ink Maker* 18, No. 5, May, 1950, Pages 36-38 and 63 (4 pages). Mr. Balkema presents a detailed analysis of color control as approached by the large volume purchaser of packaging materials. His own solution, adequate till a better one appears, consists of visual selection of correct color and light and dark limits, the latter made with consideration of production difficulties. Spectrophotometric curves of these three form primary standards. Working standards, for visual checks during production must at all times check with the primary standards and are replaced when they don't. In ordering inks, the author points the need for giving the inkmaker data on production and use, as well as on the physical and color specifications desired. To a survey question on color control and specifications of blacks and whites, several answers are given which show that visual comparisons with standard colors, either chips or printed swatches, is the most widely used color control system although most printers consider it inadequate. Two reports cited the Photovolt Meter, Model #610, as the best control instrument. Walter Granville reported that no set of chips was adequate in the near white region, but that the Hunter Color Difference Meter was adequate and less costly than the spectrophotometer, for near whites. One reply stressed the need for specifications in all three aspects of color—hue, chroma and lightness—with just tolerable samples chosen visually from a large group of specimens.

***Moire Patterns Discussed at Production Club.** *American Ink Maker* 18, No. 4, April, 1950, Page 47. Dr. Tollenaar of the Institute for Graphical Technology,

Amsterdam, Netherlands, reports on the Moire Interference Patterns. He tells how the patterns are formed, how to calculate the distance between Moire bands, and mentions a few unusual causes of Moire patterns which occurred in printing.★★

SUMMER TROUBLES

(Continued from Page 32)

LTF has suggested this simple method of timing deep etch development: check the time required for the first application to begin to froth, and then apply two more applications each for this same length of time.

Tacky Coatings

At very high humidities (above 75%) sticking of plate coatings to negatives and positives, and to the rubber gasket on the photo-composing machine, is often encountered, especially in deep-etch. These troubles can be combated by waxing the coating while still warm, or dusting it with talc. A good waxing solution can be made by dissolving four to six ounces of paraffin wax in a quart of benzol or carbon tetrachloride. The rubber gasket should be cleaned frequently and dusted with talc.

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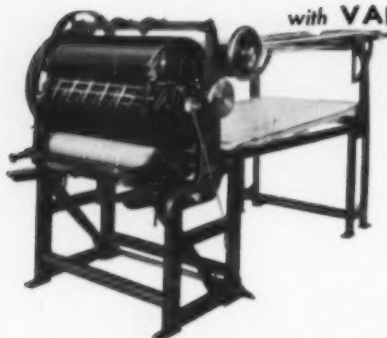
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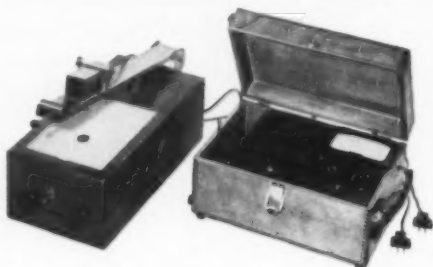
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WORLD'S LARGEST
PHOTOGRAPHIC SUPPLY HOUSE
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110 West 32nd St., N.Y.C.
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Trade Events

- Lithographers National Assn., annual convention, Edgewater Beach Hotel, Chicago, Sept. 7-8.
- Graphic Arts Exposition, Chicago Int'l. Amphitheatre, Sept. 11-23, 1950.
- International Assn. of Printing House Craftsmen, Annual convention, Stevens Hotel, Chicago, Sept. 10-13.
- Printing Industry of America, Palmer House, Chicago, Sept. 17-23.
- National Graphic Arts Education Association, Sherman Hotel, Chicago, Sept. 21, 22, 23.
- Mail Advertising Service Assn., 1950 annual convention, Hotel Roosevelt, New York, Sept. 30-Oct. 3, 1950.
- National Metal Decorators Assn., annual meeting, Sheraton Hotel, Chicago, Sept. 18-20.
- American Photoengravers Association, Chalfonte-Haddon Hall Hotels, Atlantic City, New Jersey, Oct. 9, 10, 11.
- Natl. Assn. of Photo-Lithographers, Annual convention and exhibits, Shoreham Hotel, Washington, D. C., October 25-28, 1950.
- Natl. Assn. of Litho Clubs, annual convention, Cleveland, April, 1951.
- Technical Assn. of the Lithographic Industry, annual meeting, Columbus, Ohio, April 30 May 1, 1951.

Litho Schools

- CHICAGO—Chicago Lithographic Institute, Gleason House, 1800 S. Prairie Ave., Chicago 16, Ill.
- NEW YORK—New York Trade School, Lithographic Department, 312 East 67 St., New York, N. Y.
- ST. LOUIS—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.
- MINNEAPOLIS—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.
- ROCHESTER—Rochester Institute of Technology, Dept. of Publishing & Printing, 65 Plymouth Ave., South, Rochester 8, N. Y.
- PHILADELPHIA—Carnegie Institute of Technology, Dept. of Printing Administration, Pittsburgh.
- WEST VIRGINIA—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

- Lithographic Tech., Foundation
Wade E. Griswold, Exec. Dir.
131 East 39 St., New York 16, N. Y.
- National Association of Photo-Lithographers
Walter E. Soderstrom, Exec. Sec'y
317 West 45 St., New York 19, N. Y.
- Lithographers National Association
W. Floyd Maxwell, Exec. Dir.
420 Lexington Ave., New York 17, N. Y.
- National Association of Litho Clubs
James Sovacek, Pres.
Printing Dept., Western Electric Co., Chicago
- Printing Industry of America
James R. Brackett, Gen. Mgr.
719 15th St., N. W., Washington 5, D. C.
- International Assn. of Printing House Craftsmen
P. E. Oldt, Exec. Sec'y.
18 E. Fourth St., Cincinnati 2

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(The Advertisers' Index has been carefully checked but no responsibility can be assumed for errors or omissions.)



"Somebody's bin a lyin' to us, Cuthbert"

Blank...

UNLESS your advertising is seen by the right audience—those who can buy your goods in sizable proportions—is it not in fact a blank? Handsome illustrations, costly layouts, smart copy, et al, may intrigue readers—but if these readers cannot or do not buy your goods—what value? Advertising primarily is to create demand and sell goods—and must be read by prospective buyers.

You can avoid drawing a blank in any part of your industrial advertising coverage by use of the right industrial publication, those which specialize in reaching the fields you want to sell. In the lithographic field, for instance, the specific publication happens to be

MODERN LITHOGRAPHY

254 WEST 31st STREET

NEW YORK 1

Member, Audit Bureau of Circulations

Tale Ends

WHEN they picked up two lithographers in Buffalo last month on counterfeiting charges, for running off a million dollars worth of U. S. and Canadian fives and tens, we handled it as a routine counterfeit story—like the ones that crop up in the news about every couple of years. But then when we discovered that they also were charged with printing counterfeit "South Pacific" tickets, it began to look more illegal. They shouldn't allow that. Such counterfeiters should be banished to the Fiji Islands.

★

One of the recent Miller printing press ads showed a pressman with the seat of his pants quite dirty. W. T. Clawson of the Miller Co. says two pressmen have told him that this indicates that the guy must have been taking it easy while the press ran. Sign of a good press, claims Clawson.

★

A recently distributed direct mail broadside, designed and produced by Von Hoffman Press, St. Louis, took second place honors in a Mid-Century Exhibit of Advertising, held in that city. The broadside, designed around a theme of rabbits, announced the company's installation of two-color offset presses.

★

Herbert P. Zimmerman, chairman of the board of R. R. Donnelley & Sons Co., Chicago, is chairman of a Council on Medical and Biological Research which sponsors research at the Univ. of Chicago. Last month the group, which numbers 30 Chicago business leaders, sponsored a week-long open house reception at which guests saw laboratory demonstrations of industrial uses of atomic matter and other developments in the university's research center.

★

When you get that subscription renewal notice, send it along in order not to miss any copies of MIL. Some good articles coming along on masking and highlight halftones, among others.

PLAN FOR QUALITY



We've had rain-makers in our studio—and do they raise hell! First, we had to build the side of a house, and paint the shingles with three coats to look wet from rain. Then set up a dogwood tree and shrubbery from a nursery, a Bus Stop sign from the Police Dept., and a couple of models in Koroseal coats syringed with rain drops. And over all, a series of perforated water pipes to shower the place.

All to make one photograph! Do you wonder we say, "When reproducing fine photographs, use fine paper to hold the detail we work hard to put into the original." All a printer has to do to create a million high-fidelity copies in less time than we take for one—is use Cantine Coated Paper!

—Tony Venti



PHOTO BY VENTI, FOR S. F. GOODRICH CO. COURTESY, V. C. KENNEY, ART DIRECTOR, GRIDWOLD-SHILMAN CO.

TO GET full value and satisfaction out of your printing, don't stop half-way in the production. Particularly when you have a fine photograph or painting to reproduce either by letterpress or offset, use genuine Cantine precision coated paper, capable of giving high fidelity through long runs as well as short ones.

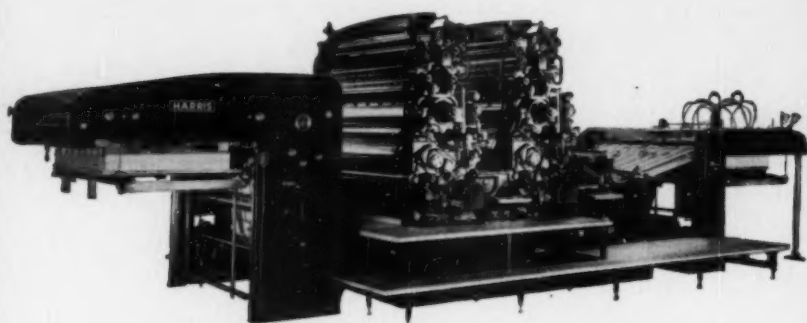
Cantine's Coated Papers

LETTERPRESS: HI-ARTS, ASHOKAN, ZEWA, CATRELL, CANFOLD, M-C FOLDING, VELVETONE, SOFTONE, ESOPUS TINTS, ESOPUS POSTCARD

OFFSET-LITHO: HI-ARTS C15, ZENAGLOSS OFFSET C25, LITHOGLOSS C3 VARNISH, CATRELL LITHO C18

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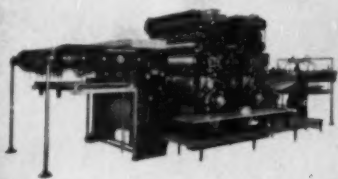
WORK HORSES of the Lithographic Industry



HARRIS MODEL 258, Two Color 42x58 Offset Press

Also Available in Single and Four Color Models

Two-Year Old - *on the Inside Track*



• Sire - Model LSK •



• Grandsire - Model GT •

Here's a thoroughbred champion from a long line of Harris money-winners.

Its grandsire, the Harris GT, was making records when some of us were still listening to crystal sets.

Its sire, the Harris LSK, still runs a great race.

But as fine as these veterans were in their prime, today's 42 x 58" Harris two-color will outperform them when it comes to quality of register, salable sheets per day, running speed.

Today's race is growing too tough for any but the top performers. It takes the stamina, speed, and superior production of a new Harris to stay out in front.

What chance, for instance, would a Model GT have against a Model 258 when the new press can run 65% faster? It can even outrun the Model LSK by 30%!

Would it improve your operating costs to get a better run for your money . . . better by 30%?

HARRIS-SEYBOLD

Dept. K, General Offices, Cleveland 5, Ohio